

Juniper.JN0-682.by.AnLee.87q

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**Exam Code: JN0-682**

**Exam Name: Juniper Data Center, Professional**

## Exam A

### QUESTION 1

You manage a data center with a 5-stage EVPN-VXLAN IP fabric. You notice that there are suboptimal paths used between the leaf and spine as well as the spine and super spine. What is one way to solve this issue?

- A. Configure the super spine and spine layers to all use the same ASN.
- B. Configure the spine layer for EBGP and the leaf layer for IBGP
- C. Configure the spine layer so that all spines in a POD share the same ASN.
- D. Configure the leaf layer so that all leaf devices share the same ASN.

**Correct Answer: C**

**Section:**

**Explanation:**

By configuring all spines in a POD to share the same ASN, it simplifies the BGP routing and ensures that more optimal paths are used in a 5-stage EVPN-VXLAN IP fabric.

### QUESTION 2

Application developers are complaining that east-west server traffic is not being load balanced in your new data center. What are three reasons for this behavior? (Choose three.)

- A. BGP multipath is not configured.
- B. Policies for load balancing have not been configured.
- C. MP-BGP is not exporting the correct prefix type.
- D. There is insufficient spine to leaf bandwidth.
- E. ESI active/active has not been configured.

**Correct Answer: A, B, D**

**Section:**

**Explanation:**

A) If BGP multipath is not configured, traffic may not be load-balanced across multiple paths. B. Without proper load-balancing policies, traffic distribution might not be optimal. D. Insufficient bandwidth between spine and leaf can lead to congestion and affect load balancing.

### QUESTION 3

Your manager asks you to secure ARP and DHCP traffic across your local Ethernet links. In this scenario, which technology will accomplish this task?

- A. SSL
- B. MAC sec
- C. IPsec
- D. A firewall filter

**Correct Answer: B**

**Section:**

**Explanation:**

MACsec (Media Access Control Security) is the technology used to secure ARP and DHCP traffic across local Ethernet links. It provides secure, encrypted communication at the MAC layer, ensuring that traffic like ARP and DHCP is protected from eavesdropping and tampering.

Juniper Networks - MACsec Overview

#### QUESTION 4

You are creating a new EVPN and are asked to selectively accept certain MAC advertisement routes from your EVPN peers using VXLAN Encapsulation. Which statements is correct in this scenario?

- A. You can use VRF policies and route distinguisher values to filter out unwanted routes.
- B. You can use VBRF import policies and community values to filter out unwanted routes.
- C. You can use MAC filtering to filter out unwanted routes.
- D. You can use firewall filters to filters out unwanted routes

**Correct Answer: B**

**Section:**

**Explanation:**

In an EVPN environment, VRF (Virtual Routing and Forwarding) import policies along with community values can be used to selectively accept certain MAC advertisement routes. These policies can be configured to include or exclude specific routes based on community values, allowing for granular control over the routes accepted from EVPN peers.

Juniper Networks - EVPN for VXLAN Configuration Guide

#### QUESTION 5

What are the two valid types of VXLAN signaling?(Choose two.)

- A. EVPN
- B. RSVP
- C. RSTP
- D. MPLS

**Correct Answer: A, B**

**Section:**

**Explanation:**

<https://www.juniper.net/documentation/us/en/software/junos/evpn-vxlan/topics/concept/data-center-interconnect-evpn-vxlan-evpn-mpls-wan-overview.html>

#### QUESTION 6

Which two statements describe a VXLAN network identifier (VNI)? (Choose Two)

- A. A VNI identifies the inner MAC frame.
- B. A VNI identifies a VXLAN segment ID.
- C. A VNI allows only 512 VLANs.
- D. A VNI validates the remote VTEP.

**Correct Answer: B, D**

**Section:**

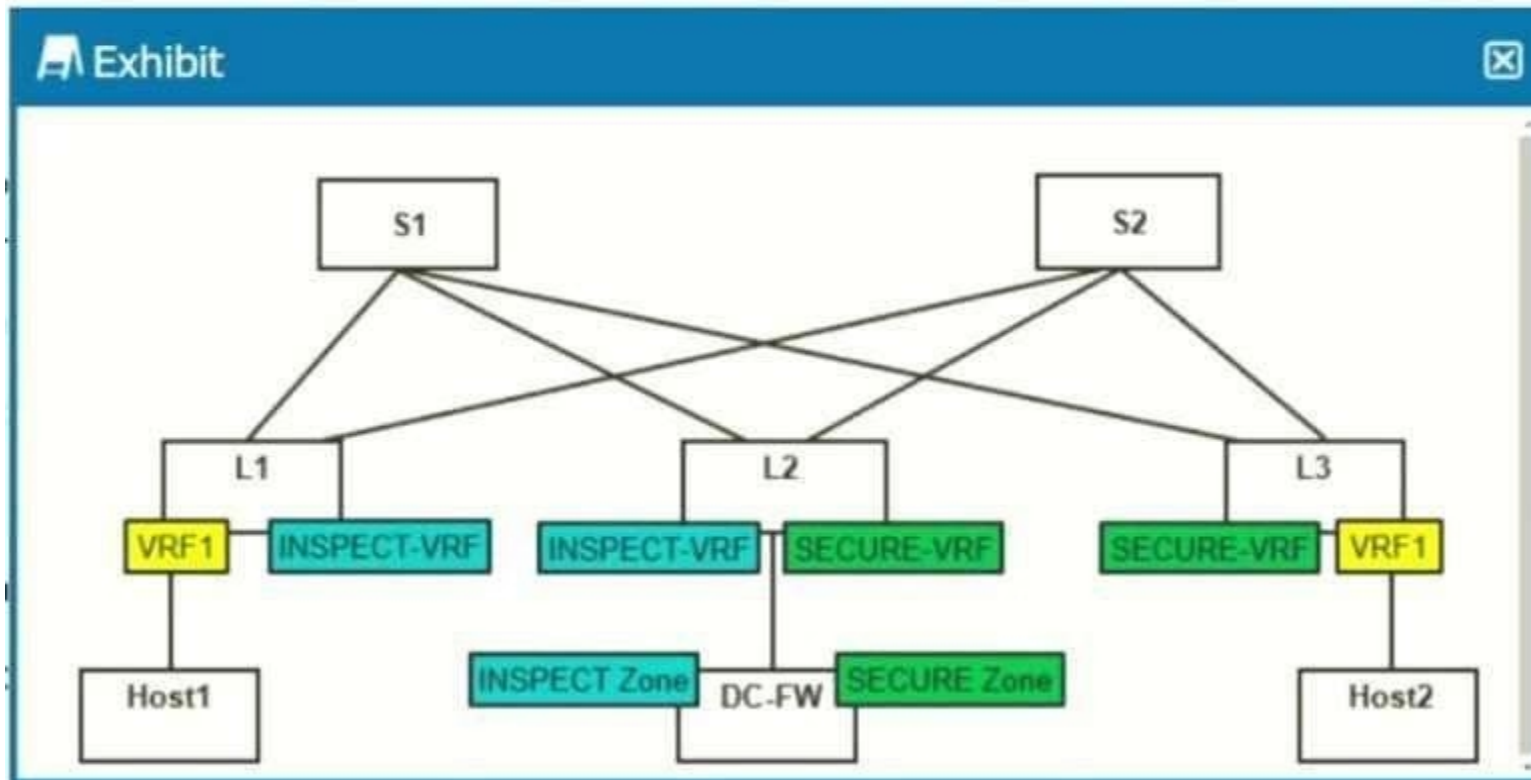
**Explanation:**

A VXLAN Network Identifier (VNI) is crucial in VXLAN as it identifies a specific VXLAN segment, allowing for traffic segregation and logical network partitioning within the same physical infrastructure. VNIs also play a role in validating remote VTEPs (VXLAN Tunnel Endpoints) as part of the VXLAN encapsulation and decapsulation process.

Juniper Networks - VXLAN Overview

#### QUESTION 7

You are attempting to configure filter-based forwarding in your data center. All traffic from Host1 that is going to Host2 should be inspected by the data center firewall. You have verified that the traffic is being forwarded from router leaf L1's VRF-1 to its INSPECT-VRF. However, the traffic is not reaching service L2.



Referring to the exhibit, which two steps should you take to troubleshoot the problem? (choose two.)

- A. Examine the INSPECT-VRF.evpn 0 route table on L1 for a default route that will direct the traffic to L2.
- B. Examine the INSPECT-VRF.inet. 0 route table on L1 for a default route that will direct the traffic to L2.
- C. Ensure that VRF-1 and INSPECT-VRF route targets on L1 and L2 match.
- D. Ensure that the route target in the INSPECT-VRF of L1 matches the route target of the INSPECT- VRF of L2.

**Correct Answer: C, D**

**Section:**

### QUESTION 8

You administer an EVPN-VXLAN fabric. You notice that there is no VXLAN traffic forwarding through the network.

```
[edit]
user@router# show interfaces et-0/0/49
description facing_sphernet-0/0/0?
mtu 9216?
unit 0 {
  family inet {
    filter {
      input allow-BGP?
    }
    address 10.1.0.15/31?
  }
}

[edit]
user@router# show firewall
family inet {
  filter allow-BGP {
    term 1 {
      from {
        protocol tcp?

```

```
Exhibit
}
[edit]
user@router# show firewall
family inet {
  filter allow-BGP {
    term 1 {
      from {
        protocol tcp;
        destination-port bgp;
      }
      then accepts;
    }
    term 100 {
      then {
        reject;
      }
    }
  }
}
```

Referring to the exhibit, which modification will solve the problem?

- A. set firewall family inet filter allow-BGP term 1 from protocol udp set firewall family inet filter allow- BGP term 1 from destination-port 4789
- B. set interfaces et-0/0/49 unit 0 family vxlan
- C. set interfaces et-0/0/49 unit 0 family vpls
- D. set firewall family inet filter allow-BGP term 1 from protocol tcp set firewall family inet filter allow- BGP term 1 from destination-port 4789

**Correct Answer: A**

**Section:**

**QUESTION 9**

You are an engineer for a hosting company. You have a new customer that wants the ability to connect any VLAN on any port. They want to have all VLANs map to a single bridge domain and EVPN instance (EVI). They control all their own routing and just need the connectivity.

Which two parameters should you configure to achieve these goals? (Choose two.)

- A. instance-type mac-vrf
- B. service-type vlan-aware
- C. service-type vlan-bundle
- D. instance-type virtual-switch

**Correct Answer: B, D**

**Section:**

**Explanation:**

B) service-type vlan-aware allows for multiple VLANs to be associated with a single bridge domain. D. instance-type virtual-switch is used for creating a single bridge domain to accommodate multiple VLANs.

**QUESTION 10**

You want to improve network convergence within a data center during link failures. In this scenario, which EVPN-VXLAN feature will accomplish this task?

- A. storm control
- B. Ethernet segment auto discovery
- C. MAC filtering
- D. MAC mass withdrawal

**Correct Answer: D**

**Section:**

**Explanation:**

The MAC mass withdrawal feature in EVPN-VXLAN environments significantly improves network convergence during link failures. When a link failure occurs, instead of individually withdrawing each MAC address learned on the failed link, EVPN can send a single, consolidated message indicating that all MAC addresses associated with the Ethernet Segment Identifier (ESI) of the failed link are no longer reachable. This accelerates the convergence process by reducing the amount of control plane traffic needed to update the network state.

Reference: Juniper Networks EVPN-VXLAN Technical Documentation.

#### QUESTION 11

Which IP fabric underlay protocol provides the highest degree of scalability?

- A. IS-IS
- B. RIP
- C. EBGp
- D. OSPF

**Correct Answer: C**

**Section:**

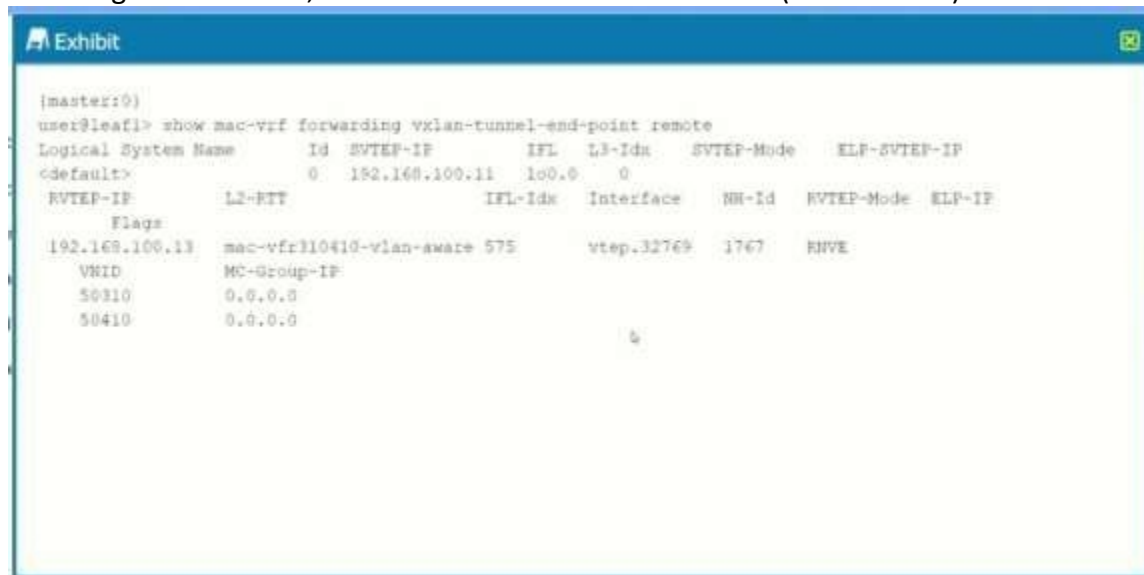
**Explanation:**

Among the listed protocols, External Border Gateway Protocol (EBGP) provides the highest degree of scalability for an IP fabric underlay. EBGp is designed for inter-autonomous system routing and thus is well-suited to handle large-scale network environments with robustness and scalability. It is commonly used in data center fabrics due to its ability to efficiently manage routing information and scale with the network as it grows.

Reference: Juniper Networks Data Center Design - IP Fabric.

#### QUESTION 12

Referring to the exhibit, which two statements are correct? (Choose two.)



```
[master:0]
user@leaf1> show mac-vrf forwarding vxlan-tunnel-end-point remote
Logical System Name  Id  SVTEP-IP      IFL  L3-Id#  SVTEP-Mode  ELP-SVTEP-IP
<default>           0   192.168.100.11  100.0  0
VTEP-IP             L2-FTT      IFL-Id#  Interface  NH-Id  VTEP-Mode  ELP-IP
Flags
192.168.100.11     mac-vfr310410-vlan-aware  575      vtep.32769  1767    ENVE
VNIID              MC-Group-IP
50110              0.0.0.0
50410              0.0.0.0
```

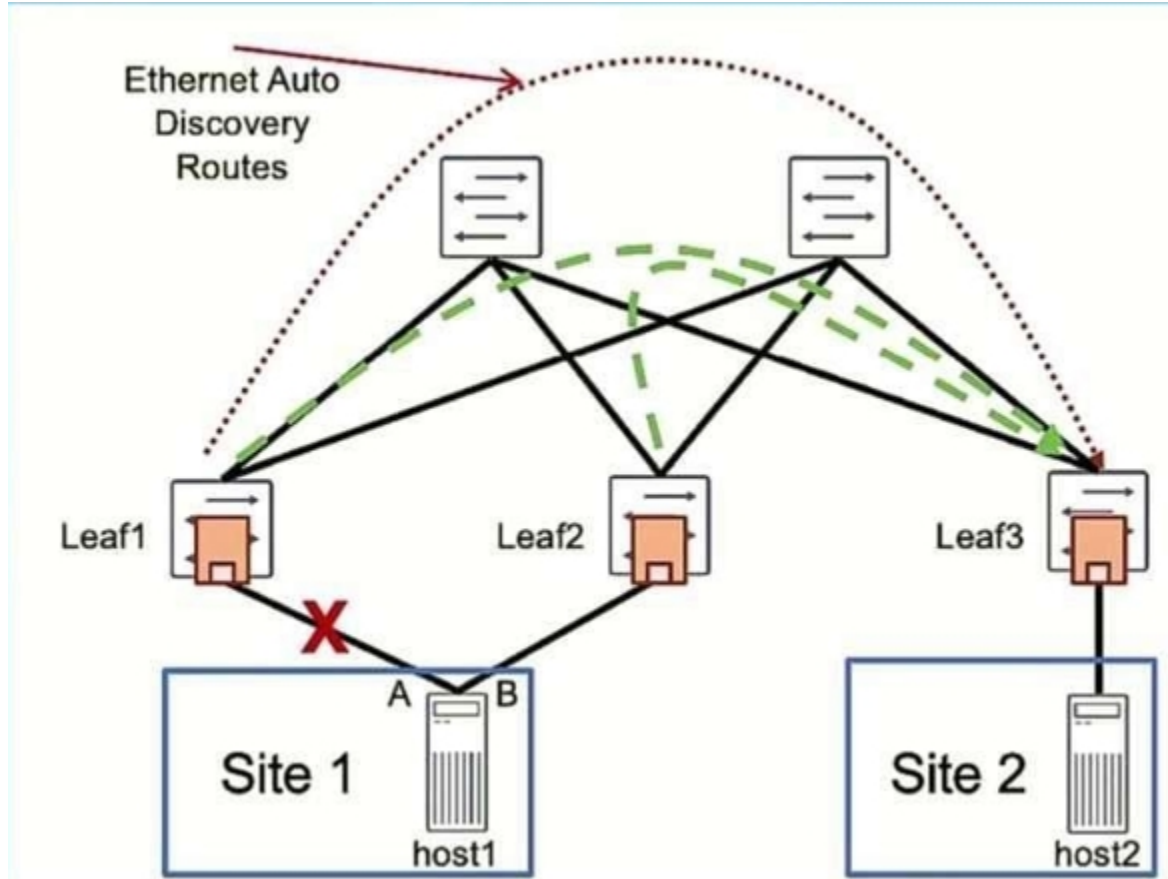
- A. The local leaf is using the 192.168.100.102 IP address as the local anchor point of the VTEP tunnel.
- B. The remote leaf is using the 192.168.100.102 IP address as the local anchor point of the VTEP tunnel.
- C. The remote leaf is using the 192.168.100.101 IP address as the local anchor point of the VTEP tunnel.
- D. The local leaf is using the 192.168.100.101 IP address as the local anchor point of the VTEP tunnel.

**Correct Answer: A, C**

**Section:**

**QUESTION 13**

Site 1 contains 20+ VMs. The link between Site 1 and Leaf1 goes down. Referring to the exhibit, which statement is correct?



- A. Type-1 routes for each VM will expire one at a time.
- B. Type-1 routes for all VMs in the site will expire all at once.
- C. Type-1 routes for all VMs in the site will be withdrawn all at once.
- D. Type-1 routes for each VM will be withdrawn one at a time.

**Correct Answer: C**

**Section:**

**QUESTION 14**

Referring to the exhibit,

```
Exhibit
[user@server ~]# cat /etc/dhcp/dhcpd.conf
...
host qfx1 {
  hardware ethernet dc:11:2e:15e:48:00;
  fixed-address 172.25.10.111;
  option option-150 172.25.10.1;
  option SUNW.server-image "/var/ftp/pub/jinstall-host-qfx-5e-x86-64-21.3R1.9-secure-signed.tgz";
  option SUNW.server-file "/var/ftp/pub/qfx1-ZTP.config";
}
```

what happens when you initiate ZTP on a QFX5120 switch running Junos 21.3R1.9?

- A. ZTP skips both the Junos installation and the configuration.
- B. ZTP performs the Junos installation but skips the configuration.
- C. ZTP performs both the Junos installation and the configuration.
- D. ZTP skips the Junos installation but applies the configuration.

**Correct Answer: D**

**Section:**

**QUESTION 15**

When considering VRF routing-instances for network segmentation, which two statements are true? (Choose two.)

- A. A logical interface can participate in multiple VRFs.
- B. Multiple VRFs on a single device consolidate routing information to a single table.
- C. VRFs have independent routing tables.
- D. VRFs support overlapping subnets.

**Correct Answer: C, D**

**Section:**

**Explanation:**

Virtual Routing and Forwarding (VRF) instances allow multiple virtual routing tables to exist on a single physical router. Each VRF has its own independent routing table, which allows network paths to be segmented without interference from other VRFs. This design supports overlapping IP address spaces, enabling the same IP subnet to be used in different VRFs without conflict.

Reference

Virtual Routing and Forwarding

**QUESTION 16**

What are two types of EVPN routes? (Choose two.)

- A. ES-Import route target
- B. Ethernet segment
- C. MAC mobility
- D. MAC advertisement



**Correct Answer: C, D**

**Section:**

**Explanation:**

In Ethernet VPN (EVPN), MAC mobility and MAC advertisement are crucial route types. MAC mobility is used to handle the movement of MAC addresses between different network locations, ensuring accurate and efficient traffic forwarding. MAC advertisement routes are used to advertise the presence of MAC addresses, enabling the correct forwarding of Ethernet frames in an EVPN environment.

Reference

EVPN Overview

**QUESTION 17**

You are considering deploying a MAC-VRF type routing instance with a VLAN-bundle service type. In this scenario, which two statements are correct? (Choose two.)

- A. It can be implemented in a bridge overlay architecture.
- B. VLAN normalization is supported.
- C. Multiple VLAN IDs per EVI are supported.
- D. It can be implemented in an ERB architecture.

**Correct Answer: A, C**

**Section:**

**Explanation:**

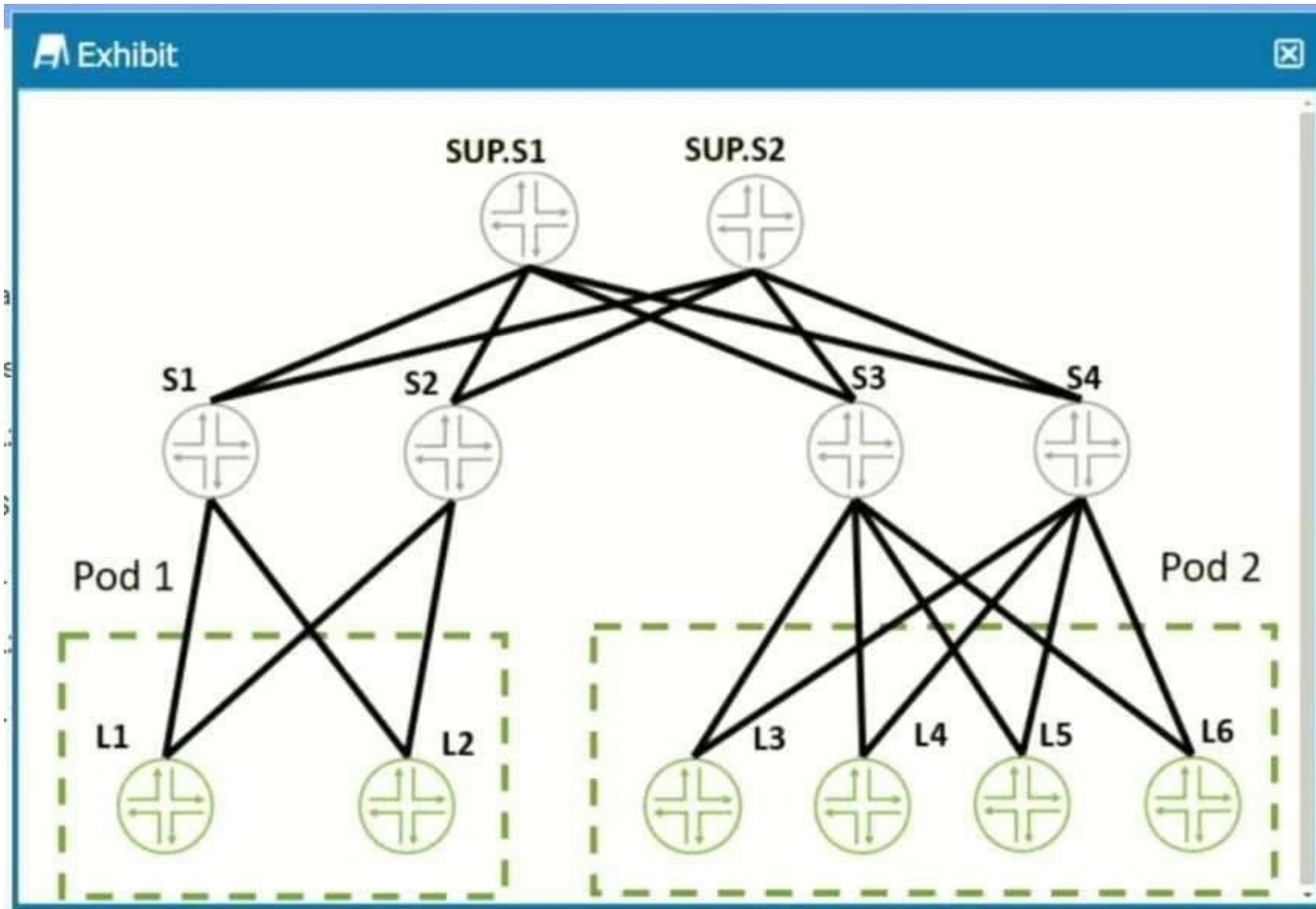
A MAC-VRF (MAC Virtual Routing and Forwarding) instance with a VLAN-bundle service type is used in EVPN-VXLAN architectures. It can be implemented in a bridged overlay architecture where Ethernet segments are bridged across the EVPN-VXLAN network. This setup supports multiple VLAN IDs per Ethernet VPN Instance (EVI), enabling the segregation and transport of traffic from different VLANs over the same EVPN-VXLAN infrastructure.

Reference

[EVPN-VXLAN Configuration Guide](<https://www.juniper.net/documentation/us/en/software/en/software/junos/evpn-vxlan/topics/topic-map/evpn-overview.htm>)

**QUESTION 18**

Referring to the exhibit, you have a data center with two PODs. Seamless EVPN-VXLAN stitching is used to facilitate communication between the PODs.



Which three statements are true in this scenario? (Choose three.)

- A. AVXLAN tunnel can form between L2 and S1.
- B. A VXLAN tunnel can form between S1 and S2.
- C. AVXLAN tunnel can form between L1 and L2.
- D. AVXLAN tunnel can form between L2 and S3.
- E. AVXLAN tunnel can form between L1 and L4.

**Correct Answer: A, B, D**

**Section:**

**QUESTION 19**

A customer wants to connect two data centers on different subnets using EVPN. What are two implications of using different IP subnets at each site? (Choose two.)

- A. Using different IP subnets at each site allows Layer 3 gateways to exchange only type-3 routes.
- B. MAC addresses will need to be advertised between the data centers.
- C. MAC addresses will not need to be advertised between the data centers.
- D. Using different IP subnets at each site allows Layer 3 gateways to exchange only type-5 routes.

**Correct Answer: B, D**

**Section:**

**Explanation:**

When connecting two data centers on different subnets using EVPN, MAC addresses need to be advertised between the data centers to maintain Layer 2 connectivity. Using different subnets implies the need for Layer 3 gateways at each site, which typically involve exchanging type-5 routes in an EVPN context.

Reference:

EVPN for Data Center Interconnect

#### **QUESTION 20**

You want to enable an EBGP-based IP fabric to allow ECMP routes to be populated into the RIB. In this scenario, which action will accomplish this task?

- A. Enable the forwarding-options ecmp-do-local-lookup parameter.
- B. Enable the multipath multiple-as BGP parameter.
- C. Enable the routing-options multipath global parameter.
- D. Enable the chassis ecmp-alb parameter.

**Correct Answer: B**

**Section:**

**Explanation:**

To enable ECMP (Equal-Cost Multi-Path) routes in the Routing Information Base (RIB) in an EBGP-based IP fabric, you should enable the 'multipath multiple-as' BGP parameter. This setting allows the use of multiple paths for BGP routes even when they come from different autonomous systems, which is key in a typical EBGP deployment in a data center IP fabric.

Reference:

BGP and Multipath Routing

#### **QUESTION 21**

Which two statements are true about VRF routing instances? (Choose two.)

- A. VRF can be used in conjunction with Layer 3 logical interfaces.
- B. Each logical Layer 3 interface can belong to only one routing instance.
- C. Each logical Layer 3 interface can belong to multiple routing instances.
- D. VRF does not enable multitenancy.

**Correct Answer: A, B**

**Section:**

**Explanation:**

VRF (Virtual Routing and Forwarding) instances can be used in conjunction with Layer 3 logical interfaces. Each logical Layer 3 interface can belong to only one VRF, maintaining separation and isolation of routing tables, which is essential for multitenancy and network segmentation.

Reference:

VRF Lite Configuration

#### **QUESTION 22**

Referring to the exhibit, you want to advertise the IRB routes between both routing instances.

```
Exhibit
[edit routing-instances]
user@spine-1# show
Tenant_A {
  instance-type vrf;
  interface irb.101;
  route-distinguisher 10.1.255.1:1010;
  vrf-target target:65000:101;
}
Tenant_C {
  instance-type vrf;
  interface irb.103;
  route-distinguisher 10.1.255.1:1030;
  vrf-target target:65000:103;
}

[edit policy-options]
user@spine-1# show
policy-statement irb-A {
  term 1 {
```

```
route-distinguisher 10.1.255.1:1030;
  vrf-target target:65000:103;
}

[edit policy-options]
user@spine-1# show
policy-statement irb-A {
  term 1 {
    from community comm-VE_VLAN101;
    then accept;
  }
}
policy-statement irb-C {
  term 1 {
    from community comm-VE_VLAN103;
    then accept;
  }
}
community comm-VE_VLAN101 members target:65000:101;
community comm-VE_VLAN103 members target:65000:103;
```

Which two configuration parameters would be applied to accomplish this task? (Choose two.)

- A. Apply policy irb-A under instance Tenant\_c and apply policy irb-c under instance Tenant\_A as import policies.
- B. Configure auto-export under both routing instances.
- C. Configure vrf-table-label under both routing instances.
- D. Apply policy irb-A under instance Tenant A and apply policy irb-c under instance Tenant\_c as export policies.

**Correct Answer: A, C**

**Section:**

**QUESTION 23**

You have deployed a multitenant EVPN-VXLAN fabric. You must have the routes in the BLUE VRF show up in the RED VRF. In this scenario, how would you achieve this goal?

```
Exhibit
routing-instances {
  BLUE {
    routing-options {
      multipath;
      auto-export;
    }
    protocols {
      evpn {
        ip-prefix-router {
          advertise direct-next-hop;
          encapsulation vxlan;
          vni 310300;
        }
      }
    }
    instance-type vrf;
    interface et-0/0/25.12;
    interface et-0/0/26.12;
    interface lo0.10;
    route-distinguisher 10.11.0.5:12;
  }
}
```

```
Exhibit
instance-type vrf;
interface et-0/0/25.12;
interface et-0/0/26.12;
interface lo0.10;
route-distinguisher 10.11.0.5:12;
vrf-target target:310300L:1;
vrf-table-label;
}
RED {
  routing-options {
    multipath;
    auto-export;
  }
  protocols {
    evpn {
      ip-prefix-router {
        advertise direct-next-hop;
        encapsulation vxlan;
        vni 300301;
      }
    }
  }
}
```

```
Exhibit
multipath;
auto-export;
}
protocols {
  evpn {
    ip-prefix-router {
      advertise direct-next-hop;
      encapsulation vxlan;
      vni 300301;
    }
  }
}
instance-type vrf;
interface et-0/0/25.11;
interface et-0/0/26.11;
interface lo0.9;
route-distinguisher 10.11.0.5:11;
vrf-target target:300301L:1;
vrf-table-label;
}
```

- A. Configure a VRF export policy on the BLUE VRF that matches the RED VRF route target.
- B. Configure the RED route target in the BLUE VRF.
- C. Configure the BLUE route target in the RED VRF.
- D. Configure a VRF import policy on the RED VRF that matches the BLUE VRF route target.

**Correct Answer: D**

**Section:**

**QUESTION 24**

You are building an IP fabric underlay for your data center. You are asked to ensure that the two spine devices are in the same AS (65000) while the six leaf devices are in a different AS (65512). In this scenario, which two statements are correct by default? (Choose two.)

- A. All BGP routes advertised by a leaf device will be accepted on the spine devices.
- B. A leaf device will accept all BGP routes received from the spine that were originated from another leaf device.
- C. All BGP routes advertised by a leaf device will be rejected on the spine devices.
- D. A leaf device will reject all BGP routes received from the spine that were originated from another leaf device.

**Correct Answer: A, B**

**Section:**

**Explanation:**

In an EBGp setup with different AS numbers for spine and leaf devices, all BGP routes advertised by a leaf device will be accepted on the spine devices as they are considered external routes. Additionally, a leaf device will accept all BGP routes received from the spine that were originated from another leaf device, enabling full connectivity within the fabric.

Reference:

EBGP Configuration for IP Fabric

**QUESTION 25**

Which two statements about ZTP are true? (Choose two.)

- A. The image storage service and the DHCP server can be running on different server hosts.
- B. When a switch is booted, DHCP requests are sent only through the management Ethernet interface.
- C. The image storage service must be running on the same server host where the DHCP service is running.
- D. When a switch is booted, DHCP requests are sent through the management interface as well as attached revenue ports.

**Correct Answer: A, D**

**Section:**

**Explanation:**

In ZTP, the image storage service and the DHCP server can be running on different server hosts, allowing for flexibility in network design. When a switch is booted, DHCP requests are sent through both the management interface and attached revenue ports. This ensures that the switch can retrieve its configuration from the network regardless of how it's connected.

Reference:

Zero Touch Provisioning Guide

**QUESTION 26**

You are deploying a 3-stage Clos IP fabric in your data center. In this scenario, which statement is correct?

- A. Each server-facing interface on a leaf node is always three hops away from other server-facing interfaces.
- B. Each spine node must be physically connected to all other spine nodes.
- C. There is an eight-spine node limitation.
- D. No direct physical connections exist between leaf nodes.

**Correct Answer: D**

**Section:**

**QUESTION 27**

You are deploying an EBGW IP fabric. In this scenario, which statement is true?

- A. Each spine should peer with every other spine using physical addresses.
- B. Each spine should peer with each leaf using loopback addresses.
- C. Each spine should peer with every other spine using loopback addresses.
- D. Each spine should peer with each leaf using physical addresses.

**Correct Answer: D**

**Section:**

#### QUESTION 28

You are asked to scale the available bandwidth within your Clos data center network to support more east-west traffic. In this scenario, what are two ways to accomplish this task? (Choose two.)

- A. Add leaf devices to increase available paths and bandwidth
- B. Use aggregated interfaces in the fabric.
- C. Add spines to increase available paths and bandwidth.
- D. Interconnect all spines to increase available paths and bandwidth.

**Correct Answer: A, C**

**Section:**

**Explanation:**

In a Clos data center network, scaling the available bandwidth to support more east-west traffic can be effectively achieved by either adding more leaf devices (A) or more spine devices (C). Adding leaf devices increases the total number of endpoints in the network, thereby providing additional paths and bandwidth for east-west traffic. Similarly, adding spine devices increases the interconnectivity within the network, offering more paths for traffic to flow through, which helps in handling higher volumes of east-west traffic. Both approaches work towards enhancing the overall capacity and efficiency of the network.

Reference:

Juniper Networks - Understanding Clos Networks

Juniper Networks - Data Center Network Design Considerations

#### QUESTION 29

Which two statements are correct about a spine and leaf-based IP fabric? (Choose two.)

- A. Traffic is diverted within the fabric when a device or link fails.
- B. There is no need for redundancy at the server level.
- C. Leaf switches broadcast frames to all other leaf devices.
- D. Clos networks demonstrate good scaling features.

**Correct Answer: A, D**

**Section:**

**Explanation:**

In a spine and leaf-based IP fabric, when a device or link fails, the traffic is rerouted within the fabric (A), ensuring high availability and resiliency. This architecture is designed to dynamically adapt to changes and reroute traffic as needed. Furthermore, Clos networks, which are the basis for spine-leaf architectures, demonstrate good scaling features (D) as they allow for easy expansion of the network by adding more spine or leaf switches without significant changes to the existing infrastructure.

Reference:

Juniper Networks - Spine-and-Leaf Architectures

Understanding Spine-and-Leaf Network Topologies

#### QUESTION 30

You are troubleshooting a traditional Clos Layer 3 IP fabric in your data center. You are reviewing the BGP configuration for one of your spine devices.

```

Exhibit
protocols {
  bgp {
    group Clos_Fabric {
      type external;
      local-as 65001;
      multipath {
        multiple-as;
      }
      neighbor 172.16.1.6 {
        peer-as 65003;
      }
      neighbor 172.16.1.10 {
        peer-as 65004;
      }
      neighbor 172.16.1.14 {
        peer-as 65005;
      }
    }
  }
}

```

Referring to the exhibit, which statement is correct?

- A. This spine device will not install multiple next hops for remote destinations in its routing table.
- B. This spine device will not install any routes for remote destinations in its routing table.
- C. This spine device has three neighboring leaf devices.
- D. This spine device has three neighboring spine devices.

**Correct Answer: C**

**Section:**

**QUESTION 31**

Referring to the exhibit, which statement is correct?

```

Exhibit
(master:0)
user@leaf1> show mac-vrf forwarding interface vtep.32769
Routing Instance Name : mac-vrf310410-vlan-aware
Logical Interface flags (DL - disable learning, AD - packet action drop,
LN - MAC limit hit, DN - interface down,
MSAS - Mac-move action shutdown, AS - Autostate-exclude enabled,
SCTL - shutdown by Storm-control, MI - MAC/IP limit hit)

Logical      Vlan      TAG  MAC  MAC+IP  STP      Logical      Tagging
interface    members   TAG  limit limit  state   interface-flags
vtep.32769   v410     410  0    0       Forwarding
vtep.32769   v310     310  0    0       Forwarding

```

- A. Leaf1 has not learned any MAC addresses
- B. Leaf3 is the remote tunnel endpoint.
- C. One tunnel is servicing multiple VLANs
- D. Spanning Tree Protocol is disabled

**Correct Answer: C**



Section:

**QUESTION 32**

You are asked to deploy an Ethernet bridging design in a data center with the criteria shown below.

- Routing must occur on the spine devices.
- VTEPs must terminate on the leaf devices.
- Facilitate inter-VLAN communication.
- Layer 2 gateways must be present on spine and leaf devices.

Which architecture should you use in this scenario?

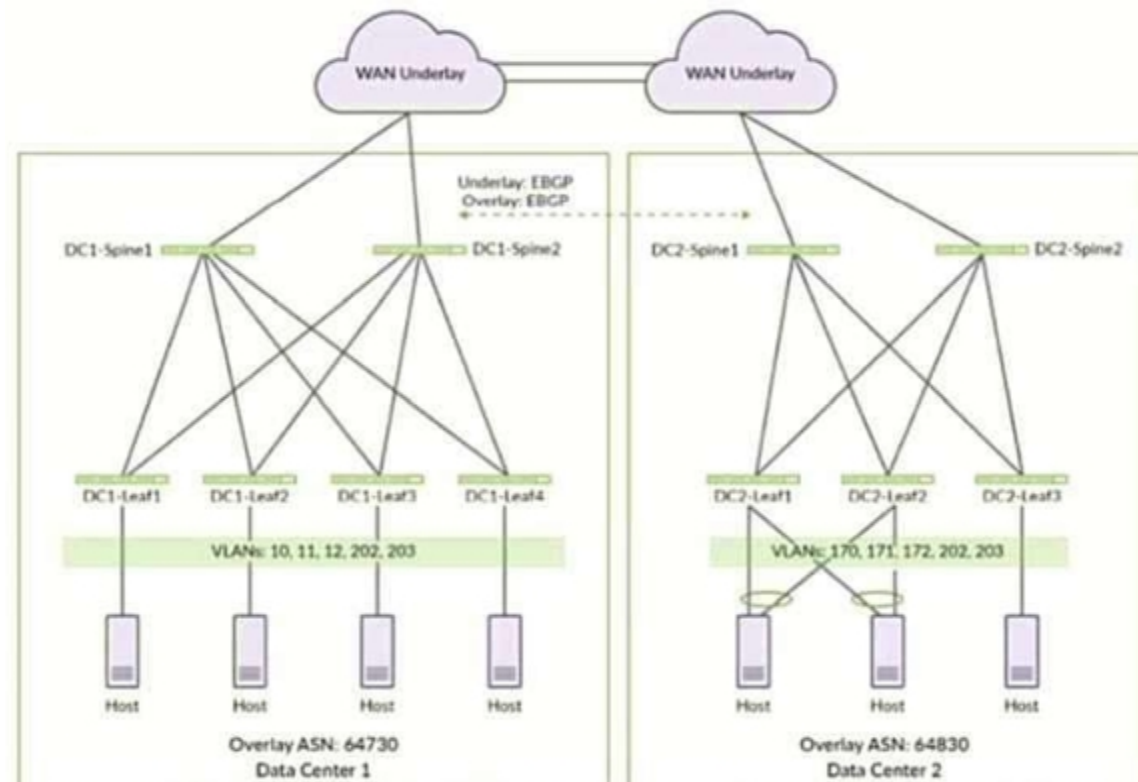
- A. edge-routed bridging architecture
- B. centrally-routed bridging architecture
- C. bridge overlay architecture
- D. collapsed spine architecture

**Correct Answer: B**

Section:

**QUESTION 33**

The two data centers shown in the exhibit need to be connected using EVPN. Which two statements are correct in this situation? (Choose two.)



- A. Hosts in VLAN 10 can communicate with hosts in Data Center 2 using Layer 3.
- B. Hosts in VLAN 10 can communicate with hosts in Data Center 2 using Layer 2.
- C. Hosts in VLAN 202 can communicate using Layer 3 between data centers.
- D. Hosts in VLAN 202 can communicate using Layer 2 between data centers.

**Correct Answer: A, D**

Section:

**QUESTION 34**

What is an advantage that EVPN has over VPLS when used for DCI?

- A. mass MAC withdrawal
- B. transparent BPDU transport
- C. active/standby multihoming
- D. reverse path forwarding

**Correct Answer: A**

**Section:**

**Explanation:**

One of the primary advantages of EVPN (Ethernet VPN) over VPLS (Virtual Private LAN Service) is the capability of mass MAC withdrawal (A). This feature allows EVPN to quickly remove MAC addresses from the forwarding database when a link or node fails, improving convergence times and network stability. In contrast, VPLS lacks this efficient mechanism for withdrawing MAC addresses en masse, which can lead to slower convergence and potential traffic blackholing in the event of network changes or failures.

Reference:

Juniper Networks - EVPN Overview

Understanding EVPN

**QUESTION 35**

You are asked to enable visibility into your EVPN-VXLAN network traffic by monitoring traffic continuously. Which two statements are correct in this scenario? (Choose two.)

- A. You cannot enable sFlow monitoring on each interface individually.
- B. The sFlow agent is installed by default on your OFX Series switch.
- C. You must enable sFlow monitoring on each interface individually.
- D. The sFlow agent needs to be manually installed on your QFX Series switch.

**Correct Answer: A, C**

**Section:**

**Explanation:**

For enabling visibility into EVPN-VXLAN network traffic through continuous monitoring:

You must enable sFlow monitoring on each interface individually (Option C): sFlow is a sampling technology used for monitoring network traffic. In a Juniper environment, sFlow needs to be enabled on individual interfaces to start collecting traffic samples. This allows for granular control over which interfaces are monitored.

You cannot enable sFlow monitoring on each interface individually (Option A): This statement is incorrect, contradicting the above explanation. sFlow can and should be enabled on specific interfaces as needed.

The option stating that the sFlow agent needs to be manually installed on QFX Series switches (Option D) is inaccurate, as the sFlow feature is typically integrated into the Junos OS running on QFX Series switches. The statement about the sFlow agent being installed by default on QFX Series switches (Option B) is partially true but does not directly address the question of enabling visibility into network traffic.

Reference

Juniper Networks: Configuring sFlow Technology for Network Monitoring

**QUESTION 36**

You are troubleshooting a problem with traffic not reaching a remote VTEP. Referring to the exhibit, what is the reason for the problem?

```
Exhibit
user@switch> traceroute overlay tunnel-type vxlan vni 100 tunnel-src 192.0.2.10 tunnel-dst 192.0.2.20

ttl  Address      Sender Timestamp      Receiver Timestamp      Response Time
 1  10.1.0.1      09-25 00:51:10 PDT.599 msecs      *
 2  192.0.2.20   09-25 00:51:10 PDT.621 msecs      09-25 00:51:10 PDT.635 msecs      21 msecs

Overlay-segment not present at VTEP 192.0.2.20
```

- A. A conflict exists with the VLAN-to-VNI mapping.
- B. The local VTEP is misconfigured with the wrong VNI.
- C. No VTEP is configured on peer 192.0.2.20.
- D. The remote VTEP does not have the correct VNI configured.

**Correct Answer: D**

**Section:**

**Explanation:**

<https://www.juniper.net/documentation/us/en/software/junos/ovsdb-vxlan-qfx/topics/example/overlay-ping-traceroute-vxlan.html>

**QUESTION 37**

The configuration shown in the exhibit is intended to set up assisted replication but will not commit. Which action will create a valid configuration in this situation?

```
Exhibit
192.168.100.1
}
vxlan-encapsulation-source-ip ingress-replication-ip
}
extended-vni-list all;
}
(master:0)[edit]
user@spine1# show interfaces lo0
unit 0 {
  family inet {
    address 192.168.100.1/32;
    address 192.168.100.51/32;
  }
}
unit 1 {
  family inet {
    address 192.168.100.101/32;
  }
}
```

- A. Change the 10.0 address to 192.168.100.1 primary.
- B. Change the replicator inet address to 192.168.100.101.
- C. Delete replicator inet 192.168.100.1.
- D. Change the replicator inet address to 192.168.100. 51.

**Correct Answer: B**

**Section:**

**QUESTION 38**

Referring to the exhibit, you must advertise the lo0.12 interface as a type-5 route.

Which configuration parameter would be used to accomplish this task?



```
[edit routing-instances serverAC]
user@Spine1# show
protocols {
  evpn {
    ip-prefix-routes {
      advertise-direct-next-hop;
      encapsulation vxlan;
      vni 1001;
    }
  }
}
instance-type vrf;
interface lrb.101;
interface lo0.12;
route-distinguisher 10.1.255.1:12;
vrf-target target:45000:12;
```

- A. Configure auto-export under the routing instance.
- B. Configure a vrf-export policy to advertise the interface route under the routing instance.
- C. Configure an export policy to advertise the interface route under protocols evpn.
- D. Configure vrf-table-label under the routing instance.

**Correct Answer: C**

**Section:**

**QUESTION 39**

Which two statements about the seamless EVPN-VXLAN stitching interconnect gateways are correct? (Choose two.)

- A. IBGP is recommended for VXLAN stitching overlays.
- B. Interconnect gateways will rewrite the route target, route distinguisher, and ESI values for each stretched virtual network.
- C. All EVPN routes types are forwarded among interconnect gateways in a full-mesh manner.
- D. The interconnect gateway can reside on the super spine layer of a multi-POD data center.

**Correct Answer: A, D**

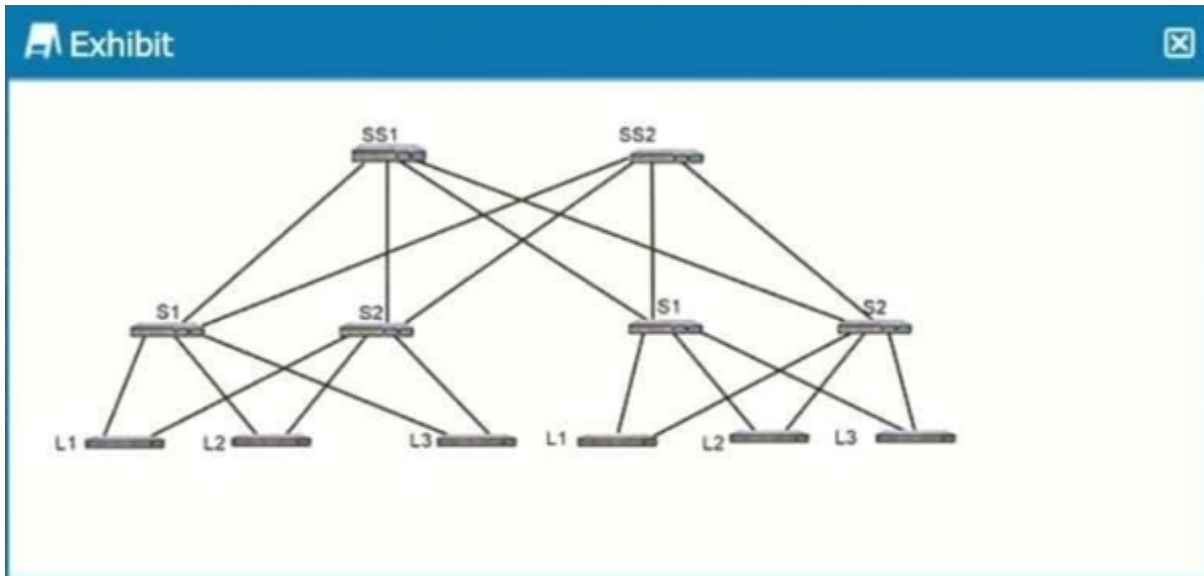
**Section:**

**Explanation:**

- A) IBGP is recommended for VXLAN stitching overlays because it provides better scalability and stability within the same administrative domain, which is crucial for seamless EVPN-VXLAN stitching.
- D) The interconnect gateway can indeed reside on the super spine layer of a multi-POD data center. This placement facilitates interconnectivity and scaling in large, distributed network architectures.

**QUESTION 40**

Referring to the exhibit, which statement is correct?

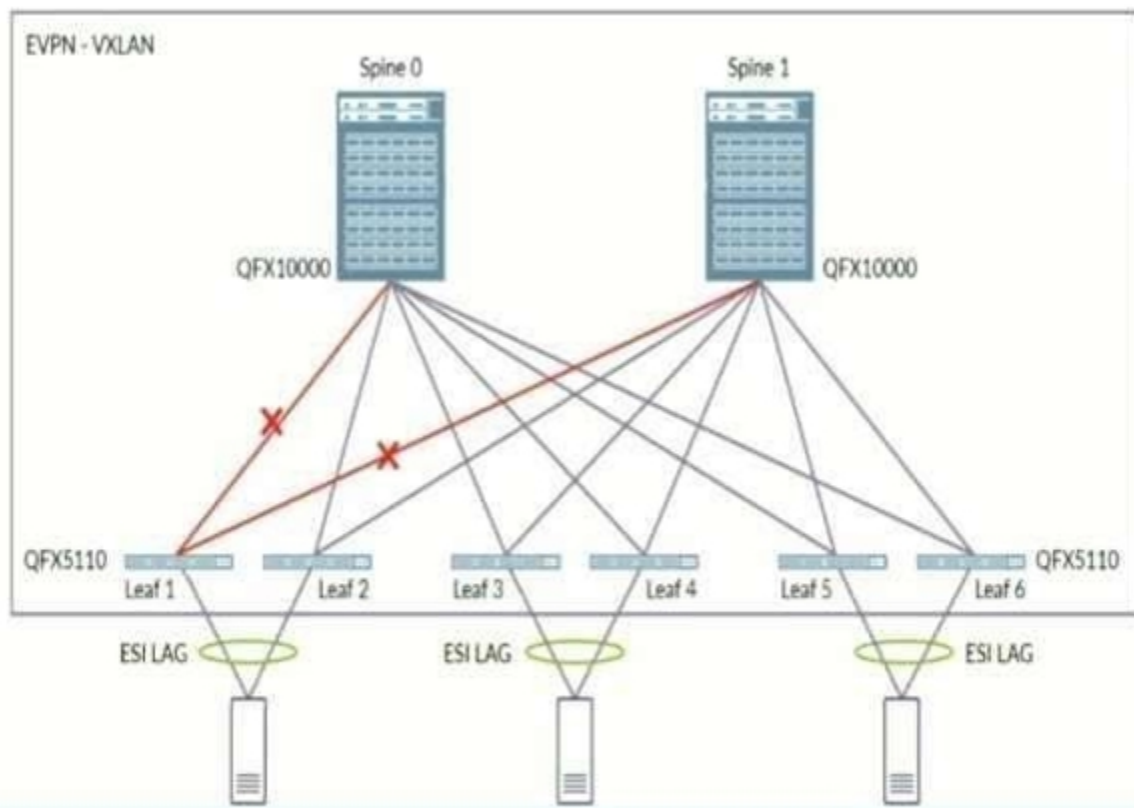


- A. The exhibit shows a 5-stage IP fabric architecture.
- B. The exhibit shows a collapsed fabric architecture.
- C. The exhibit does not represent a valid fabric architecture.
- D. The exhibit shows a 3-stage IP fabric architecture.

**Correct Answer: B**  
**Section:**

**QUESTION 41**

Referring to the exhibit,



what effect does EVPN core isolation have?

- A. Leaf 1 will send a pause frame to each connected host.
- B. Leaf 1 will place the interfaces to connected hosts into LACP passive mode.
- C. Leaf 1 will take down all revenue interfaces.
- D. Spine 1 will block all traffic.

**Correct Answer: B**

**Section:**

#### QUESTION 42

Referring to the exhibit,

```

[master:0]
user@leaf1> show mac-vrf forwarding vxlan-tunnel-end-point remote
Logical System Name  Id  SVTEP-IP      IFL  L3-Idx  SVTEP-Mode  ELP-SVTEP-IP
<default>           0   192.168.100.11  100.0  0
RVTEP-IP            L2-RTT      IFL-Idx  Interface  HW-Id  RVTEP-Mode  ELP-IP
Flags
192.168.100.11     mac-vfr310410-vlan-aware 575      vtep.32769  1767  RHYE
VNIID              MC-Group-IP
50310              0.0.0.0
50410              0.0.0.0

```

which two statements are correct? (Choose two.)

- A. There are two tunnels to the remote endpoint.
- B. The irb. 0 interface is the remote tunnel endpoint interface.
- C. The source tunnel IP address is 192.168.100.11.
- D. There is one tunnel to the remote endpoint.

**Correct Answer: C, D**

**Section:**

#### QUESTION 43

You are asked to deploy an Ethernet bridging design in a data center with the following criteria:

- routing must occur on the leaf devices.
- VTEPs must terminate on the leaf devices.
- facilitate inter-VLAN communication.
- lower latency with East-West traffic.

Which architecture should you use in this scenario?

- A. collapsed spine architecture
- B. edge-routed bridging architecture
- C. bridge overlay architecture
- D. centrally-routed bridging architecture

**Correct Answer: B**

**Section:**

**Explanation:**

Edge-routed bridging architecture fits all the criteria: routing occurs on leaf devices, VTEPs terminate on the leaf devices, facilitates inter-VLAN communication, and provides lower latency for East-West traffic due to its distributed nature.

#### QUESTION 44

You are an architect for an enterprise organization that currently operates three data centers with plans to expand to five data centers in the next year. You already notice large amounts of BUM flooding and must control this issue before implementing the next two data centers.

Which feature would address this issue?

- A. type-5 routes
- B. type-6 routes
- C. mesh groups
- D. VXLAN BUM traffic filter

**Correct Answer: C**

**Section:**

**Explanation:**

Mesh groups in EVPN environments can control BUM (Broadcast, Unknown unicast, Multicast) flooding. This is particularly useful in scenarios where the network is expanding, as it helps manage the flood of BUM traffic more efficiently.

#### QUESTION 45

What are two streaming data formats supported for network analytics? (Choose two.)

- A. GPB
- B. XML
- C. JSON
- D. SLAX

**Correct Answer: A, C**

**Section:**

**Explanation:**

A) GPB (Google Protocol Buffers) and C. JSON are two common formats supported for streaming network analytics data.

#### QUESTION 46

Which two characteristics would you consider when selecting spine devices in an IP fabric?

(Choose two.)

- A. scaling limitations
- B. spanning tree limitations
- C. port density
- D. data center location

**Correct Answer: A, C**

**Section:**

**Explanation:**

A) Scaling limitations are a critical factor in selecting spine devices as they determine how well the network can grow and adapt to increasing demands. C. Port density is another key consideration, as it impacts the number of connections that the spine devices can handle, which is crucial for supporting a large number of leaf devices in an IP fabric.

#### QUESTION 47

A company wants to expand their hosting business and is seeking solutions to support multiple tenants. Each tenant should be able to configure their own logical interfaces. Also, based on customer needs, all routing features must be supported.

What will satisfy the customer's requirements?

- A. Bridge domains
- B. Tenant systems
- C. Logical systems
- D. Routing instances

**Correct Answer: C**

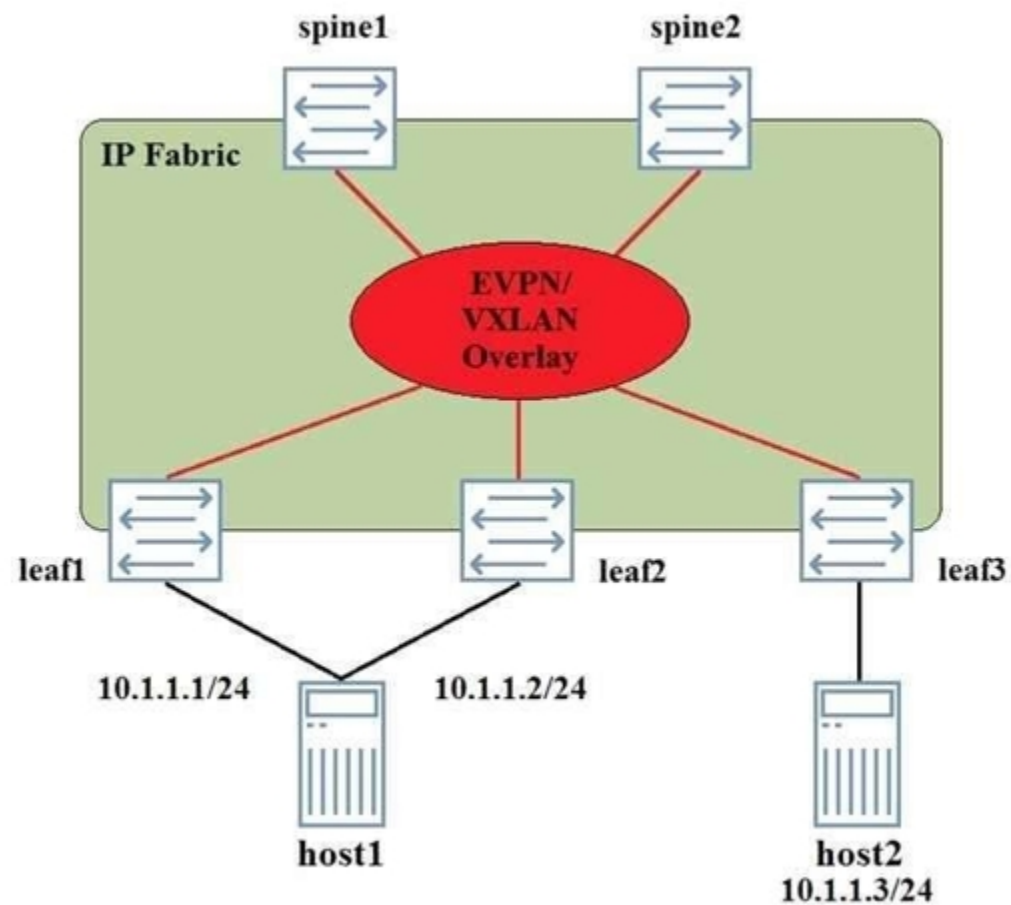
**Section:**

**Explanation:**

Logical systems allow each tenant to configure their own logical interfaces and support all routing features. This setup is ideal for hosting businesses looking to provide independent networking environments to multiple tenants.

**QUESTION 48**

An EVPN-signaled VXLAN overlay has been deployed in the network shown in the exhibit. Host1 is a bare metal server, and is dual-homed to the network. The IP addresses 10.1.1.1/24 and 10.1.1.2/24 are assigned to the same physical NIC, and no virtualization is configured on the server.



In this scenario, which two statements are true? (Choose two.)

- A. The MAC address associated with 10.1.1.1/24 and 10.1.1.2/24 will be same when advertised to leaf3.
- B. Traffic from IP address 10.1.1.1/24 must traverse the VXLAN network to reach IP address 10.1.1.2/24
- C. The connection host1 to devices leaf1 and leaf2 must be configuration a LAG.
- D. The ESI assigned to the host1 link must be the as the ESI assigned to the leaf2 host1 link.



**Correct Answer: C, D**

**Section:**

**QUESTION 49**

Your colleague has begun working on the base configuration for an active-active multihomed EVPN connection shown in the exhibit.

PE1

```
set interfaces ge-0/0/4 vlan-tagging
set interfaces ge-0/0/4 encapsulation flexible-
ethernet-services
set interfaces ge-0/0/4 esi
00:00:00:00:00:00:00:00:00:00
set interfaces ge-0/0/4 esi all-active
set interfaces ge-0/0/4 unit 0 encapsulation
vlan-bridge
set interfaces ge-0/0/4 unit 0 vlan-id 300
```

PE2

```
set interfaces ge-0/0/4 vlan-tagging
set interfaces ge-0/0/4 encapsulation flexible-
ethernet-services
set interfaces ge-0/0/4 esi
00:22:44:66:88:00:22:44:66:88
set interfaces ge-0/0/4 esi single-active
set interfaces ge-0/0/4 unit 0 encapsulation
vlan-bridge
set interfaces ge-0/0/4 unit 0 vlan-id 300
```

Which two actions will ensure a successful implementation? (Choose two.)

- A. Change the ESI mode on PE2 to all-active
- B. Change the ESI mode on PE1 to signal-active
- C. Change the ESI value on the PE1 device to 00.22.44.88.00.22.44.66.88
- D. Change the ESI value on the PE2 device to 00.00.00.00.00.00.00.00.00.00

**Correct Answer: A, C**

**Section:**

**QUESTION 50**

You work in a data center where VMs and hosts are frequently moved. Your design needs to eliminate inefficient traffic flows.

In this scenario, which two solutions will satisfy this requirement? (Choose two.)

- A. VXLAN
- B. EVPN
- C. VMTO
- D. VPLS

**Correct Answer: B, C**

**Section:**

**Explanation:**

<https://www.juniper.net/documentation/us/en/software/junos/evpn-vxlan/topics/concept/evpn-ingress-vmto.html>

#### QUESTION 51

Which EVPN route type would be used in DCI situation in which the IP subnets between data center are complete unique?

- A. Type 4
- B. Type 3
- C. Type 2
- D. Type 5

**Correct Answer: D**

**Section:**

**Explanation:**

In a DCI (Data Center Interconnect) scenario where IP subnets between data centers are completely unique, Type 5 EVPN routes (IP Prefix routes) are used. These routes allow for the advertisement of IP prefixes over the EVPN, facilitating inter-data center communication without IP overlap issues.

#### QUESTION 52

You have configured a new MC-LAG connection to a host. After committing the configuration, the MC-LAG link is not functioning properly.

```
{master:0}[edit interfaces ae1]
user@gfx1# show
aggregated-ether-options {
  lacp {
    active;
    system-id 01:01:01:01:01:01;
    admin-key 1;
  }
  mc-ae {
    mc-ae-id 0;
    chassis-id 0;
    mode active-active;
    status-control active;
  }
}
unit 0 {
  family ethernet-switching {
    vlan {
      members vl5;
    }
  }
}
```

```
{master:0}[edit interfaces ae1]
user@gfx2# show
aggregated-ether-options {
  lacp {
    active;
    system-id 01:01:01:01:01:01;
    admin-key 1;
  }
  mc-ae {
    mc-ae-id 1;
    chassis-id 1;
    mode active-active;
    status-control standby;
  }
}
unit 0 {
  family ethernet-switching {
    vlan {
      members vl5;
    }
  }
}
```

Referring to the exhibit, how would you solve this problem?

- A. Configure a system-id on qfx1 that is different from the system-id on qfx2
- B. Change the mc-ae id on qfx1 to 1
- C. Configure status-control on qfx2 to active
- D. Change the chassis on qfx1 to 1

**Correct Answer: B**

**Section:**

**QUESTION 53**

You are asked to design a deployment plan for a large number of QFX Series switches using ZTP. The ZTP deployment plan must ensure all switches are configured with their designated configuration file. Which DHCP option and subscription combination would be used to accomplish this task?

- A. DHCP option 43 a suboption of 00.
- B. DHCP option 66 a suboption of 01.
- C. DHCP option 66 a suboption of 00.
- D. DHCP option 43 a suboption of 01.

**Correct Answer: D**

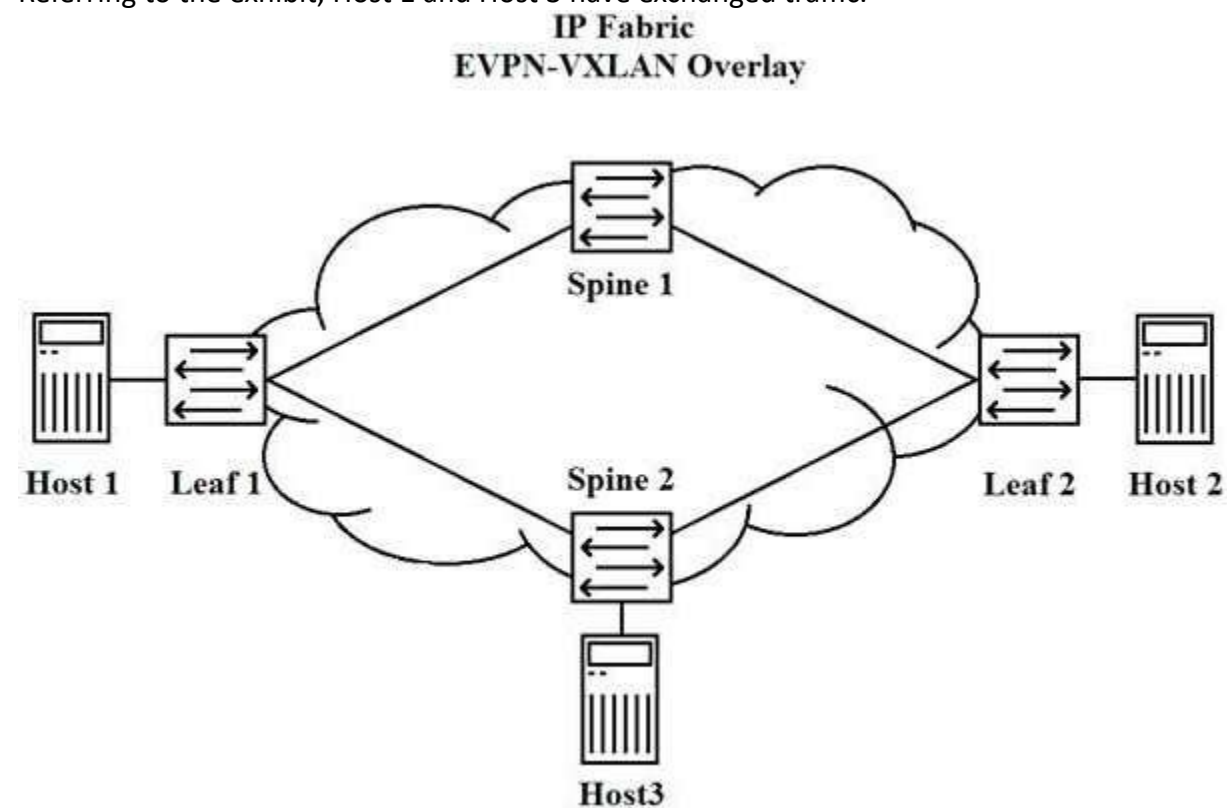
**Section:**

**Explanation:**

[https://www.juniper.net/documentation/en\\_US/junos/topics/task/configuration/ztp-configuring.html](https://www.juniper.net/documentation/en_US/junos/topics/task/configuration/ztp-configuring.html) 6. Configure the following DHCP option 43 suboptions: \* Suboption 01: The name of the script or configuration file to install.

**QUESTION 54**

Referring to the exhibit, Host 1 and Host 3 have exchanged traffic.



In this scenario, which statement is true?

- A. Leaf 2 learn Host 1's MAC address through periodic updates from Spine 2
- B. Leaf 2 learn Host 1's MAC address when Host 3 learns Host 1's MAC address.
- C. Leaf 2 learn Host 1's MAC address when Leaf 1 queries Host 1.
- D. Leaf 2 does not learn Host 1's MAC address until Host1 and Host2 send traffic to each other

**Correct Answer: B**

**Section:**

**QUESTION 55**

You are designing an EBGP IP fabric for a multi-site data center. In this scenario, which two statements are true? (Choose two.)

- A. The same AS number should be used on all devices across all data centers.
- B. Different AS numbers should be used on all devices.
- C. Private AS numbers can be used.
- D. Public AS numbers must be used

**Correct Answer: A, C**

**Section:**

**Explanation:**

A) In a multi-site data center design using EBGP (External Border Gateway Protocol), using the same AS (Autonomous System) number across all devices in all data centers can simplify the design and routing policies.  
C) Private AS numbers can be used for an EBGP IP fabric in a multi-site data center environment. This is a common practice as these AS numbers are not intended to be used on the public internet and are suitable for internal network use.

**QUESTION 56**

You are asked to deploy 20 QFX Series devices using ZTP Each QFX5 100 requires FTP server. In this scenario, which two component must you configure on the DHCP Server? (Choose two.)

- A. The MAC address of the FTP server
- B. The IP address of the FTP server
- C. The MAC address of each QFX5100
- D. The MAC address of each FTP QFX5100

**Correct Answer: B, D**

**Section:**

**Explanation:**

B) The IP address of the FTP server must be specified so that the QFX Series devices know where to retrieve their configuration files.  
D) The MAC address of each QFX5100 is necessary to ensure that each switch receives the correct configuration file. This can be specified in the DHCP server to map each MAC address to its corresponding configuration file.

**QUESTION 57**

What are three advantages of using MPLS for data center interconnects? (Choose two.)

- A. Dedicated MPLS backbones for Layer 1 and Layer 3 DCIs
- B. Any to any connectivity
- C. Dedicated connections between customer sites
- D. Sub 50 ms failover times
- E. Traffic engineering

**Correct Answer: B, D, E**

**Section:**

**Explanation:**

Any to any connectivity is a key advantage of using MPLS for data center interconnects (DCIs). It allows for flexible and efficient connectivity options between various data center locations.  
Traffic engineering is another significant advantage. MPLS allows for the control and optimization of traffic flows within the network, providing enhanced performance and efficient use of network resources

**QUESTION 58**

You want to ensure high availability of the Junos devices in your data center. In this scenario, which three features would accomplish this task? (Choose three.)

- A. Multiple Spanning Tree Protocol
- B. Virtual Router Redundancy protocol
- C. graceful Routing Engine switchover
- D. Dual Routing Engineers
- E. Virtual private LAN service

**Correct Answer: B, C, D**

**Section:**

**Explanation:**

B) Virtual Router Redundancy Protocol (VRRP) ensures high availability by allowing multiple routers to work together to provide network resilience.

C) Graceful Routing Engine switchover (GRES) allows for the seamless transition of control plane functions between Routing Engines, ensuring continuous operation of the network.

D) Dual Routing Engines provide a hardware-based high-availability solution, where a backup Routing Engine takes over in case the primary fails, ensuring uninterrupted network service.

**QUESTION 59**

A VXLAN adds 50 to 54 bytes of extra header information to an Ethernet frame. In this scenario, how would you accommodate this increased?

- A. Increase the MTU on the Physical interface connected to the VXLAN network.
- B. Increase the MTU on the VTEP interface connected to the VXLAN network
- C. Only use switches as VTEPs.
- D. Decrease the number VXLANs used

**Correct Answer: A**

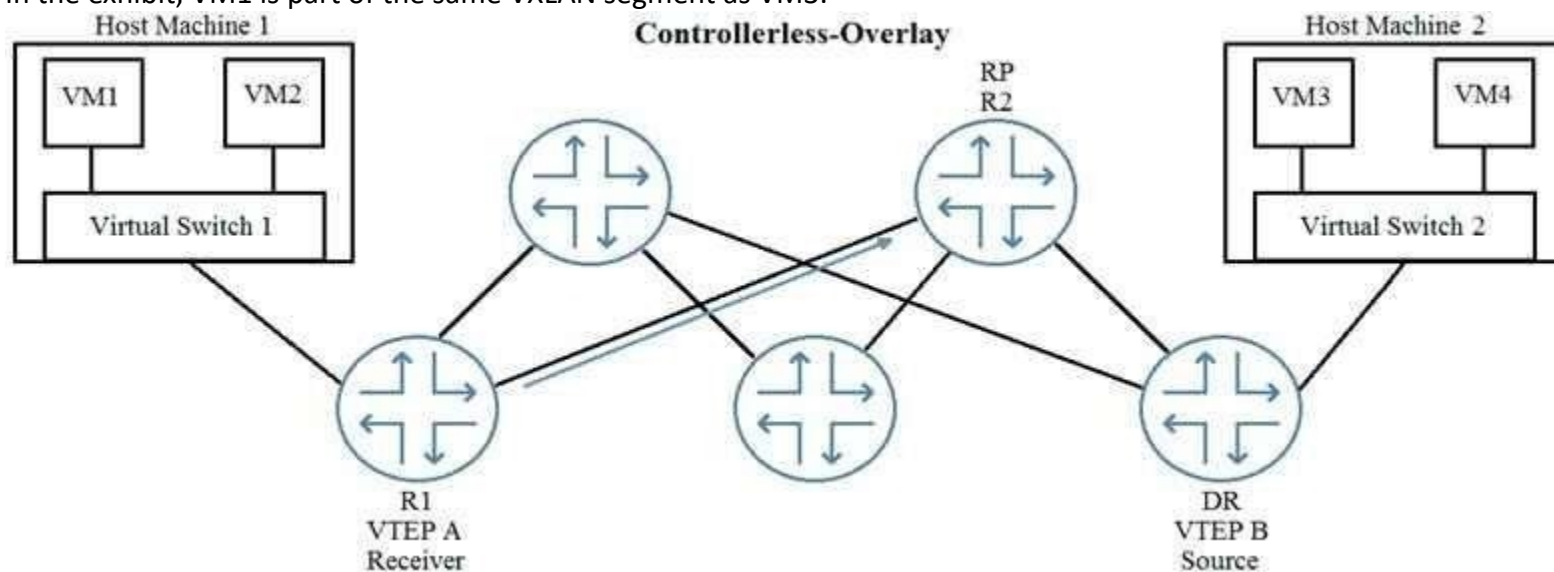
**Section:**

**Explanation:**

To accommodate the extra header information added by VXLAN, which can be 50 to 54 bytes, it's necessary to increase the MTU (Maximum Transmission Unit) on the physical interfaces connected to the VXLAN network. This ensures that the larger frames can be transmitted without fragmentation, maintaining efficient network performance.

**QUESTION 60**

In the exhibit, VM1 is part of the same VXLAN segment as VM3.



Which type of message will R1 initially send to R2 so that VM1 receives BUM traffic from VM3?

- A. PIM Join

- B. PIM Register message
- C. IGMP Join (S, G)
- D. IGMP Join (\*.G)

**Correct Answer: A**

**Section:**

#### **QUESTION 61**

What are two methods used to scale an IBGP IP Fabric? (Choose two.)

- A. Spanning tree
- B. Redundant trunk groups
- C. Route reflection
- D. Confederations

**Correct Answer: C, D**

**Section:**

**Explanation:**

Route reflection and confederations are two methods used to scale IBGP in an IP fabric. Route reflection allows an IBGP router to advertise routes received from one IBGP peer to another, reducing the number of IBGP sessions required. Confederations divide an autonomous system into smaller sub-autonomous systems, simplifying the internal BGP routing policy and management.

Juniper Networks - BGP Route Reflection

Juniper Networks - BGP Confederations

#### **QUESTION 62**

You are designing a network for a small data center. In this scenario, which underlay protocol allows for the simplest implementation?

- A. EBGp
- B. OSPF
- C. IGMP
- D. MPLS

**Correct Answer: B**

**Section:**

#### **QUESTION 63**

Which two statements describes an IP fabric? (Choose two.)

- A. Each leaf should have a connection to each spine.
- B. Open standards allow for vendor interoperability.
- C. Traffic should always follow a single path
- D. xSTP protocols should be used to prevent loops

**Correct Answer: A, B**

**Section:**

**Explanation:**

A) In an IP fabric, it's a fundamental design principle that each leaf switch should have a connection to each spine switch to ensure redundancy and optimal path utilization.

B) IP fabrics are typically built using open standards, which allow for vendor interoperability, providing flexibility in choosing hardware and software solutions from different vendors.

**QUESTION 64**

What happens when a packet is encapsulated by a VXLAN before being placed in the overlay?

- A. The TTL is decremented by two and placed in the VXLAN header.
- B. The QoS markings are placed in the VXLAN header.
- C. The VLAN-ID is placed in the VXLAN header.
- D. A VNI that maps to the VLAN-ID placed in the VXLAN header.

**Correct Answer: D**

**Section:**

**Explanation:**

When a packet is encapsulated by VXLAN, a VXLAN Network Identifier (VNI) is placed in the VXLAN header. This VNI is crucial as it maps to the VLAN-ID, ensuring that the packet is correctly identified and routed within the overlay network.

Juniper Networks - VXLAN Overview

**QUESTION 65**

After configuring an IP fabric using EIGRP as your protocol, you notice that not all of the routers are showing up in the routing tables. You have verified that all adjacencies have formed, and are configured properly. In this scenario, which statement is true?

- A. The routers have not been configured with the multipath multiple-as parameter.
- B. The routers have not been configured using the bfd-1 Liveness-detection parameter.
- C. The routers have not been configured using the multihop parameter.
- D. The routers have not been configured using the add-path parameter.

**Correct Answer: A**

**Section:**

**Explanation:**

If not all routers show up in the routing tables despite formed adjacencies in an EIGRP setup, it's likely due to the lack of configuration of the 'multipath multiple-as' parameter. This parameter allows the use of multiple paths for EIGRP routes even when they originate from different ASes.

Juniper Networks - EIGRP Multipath

**QUESTION 66**

You are asked to manage the oversubscription ratio of your spine and leaf IP fabric. You determine that you are at a 3:1 ratio of downstream to upstream traffic and must achieve a 1:1 ratio. In this scenario, which two actions would you take to achieve this goal? (Choose two.)

- A. Reduce the number of leaf nodes on your design.
- B. Increase the number of spine nodes in your design.
- C. Increase the number of server-facing ports that each leaf node uses to carry traffic.
- D. Reduce the number of server-facing ports that each leaf node uses to carry traffic.

**Correct Answer: B, C**

**Section:**

**Explanation:**

To achieve a lower oversubscription ratio in a spine-leaf architecture, you can increase the number of spine nodes (B) and increase the number of server-facing ports on each leaf node (C). This enhances the overall bandwidth and connectivity, leading to a better ratio of downstream to upstream traffic.

Juniper Networks - Data Center Network Design Best Practices

**QUESTION 67**

You host a multitenant data center that runs VMware. You must perform deep packet inspection on all inter-tenant traffic that is flowing between the VMs within the same hypervisor. Your solution must provide the security services without needing to leave the physical device. In this scenario, what should you do to solve this problem?

- A. Use separate vswitches to isolate each-tenant's network and use and use a vSRX device to evaluate inter-tenant traffic.
- B. Use VLANs to isolate each tenant's networks and use an SRX Series device to evaluate inter-tenant traffic.
- C. Use a VLANs to isolate each tenant's network and use IP tables to evaluates inter-tenant traffic.
- D. Use a vMX device to isolate each tenant's network and use firewall filters to evaluate inter-tenant traffic.

**Correct Answer: A**

**Section:**

**Explanation:**

Using separate vSwitches for each tenant's network in conjunction with a vSRX device allows for effective isolation and deep packet inspection of inter-tenant traffic. The vSRX can inspect traffic at the hypervisor level without the need for traffic to leave the physical device.

Juniper Networks - vSRX Virtual Firewall

**QUESTION 68**

Which two statements describe MAC address learning for VPLS and EVPN? (Choose two.)

- A. VPLS learns MAC addresses in the data plane
- B. EVPN learns MAC addresses in the data plane
- C. EPLS learns MAC addresses in the control plane
- D. EVPN learns MAC addresses in the control plane

**Correct Answer: A, D**

**Section:**

**Explanation:**

A) VPLS (Virtual Private LAN Service) learns MAC addresses in the data plane, meaning the learning process occurs as the traffic flows through the network.

D) EVPN (Ethernet VPN) differs from VPLS in that it learns MAC addresses in the control plane, using BGP for MAC address dissemination, which offers better scalability and control.

Juniper Networks - Understanding VPLS

Juniper Networks - Understanding EVPN

**QUESTION 69**

Referring to the VTEP output shown in the exhibit, which two statements are true? (Choose two.)



```
user@leaf1> show ethernet-switching table
```

```
MAC flags (S - static MAC, D - dynamic MAC, L - locally learned, P - Persistent static  
          SE - statistics enabled, NM - non configured MAC, R - remote PE MAC, O - ovsdb  
MAC)
```

```
Ethernet switching table : 2 entries, 2 learned  
Routing instance : default-switch
```

Vlan	MAC	MAC
Logical	Active	
name	address	flags
interface	source	
v15	52:54:00:2c:4b:a2	D
vtep.32771	192.168.100.13	
v15	52:54:00:5e:88:6a	D
xe-0/0/0.0		

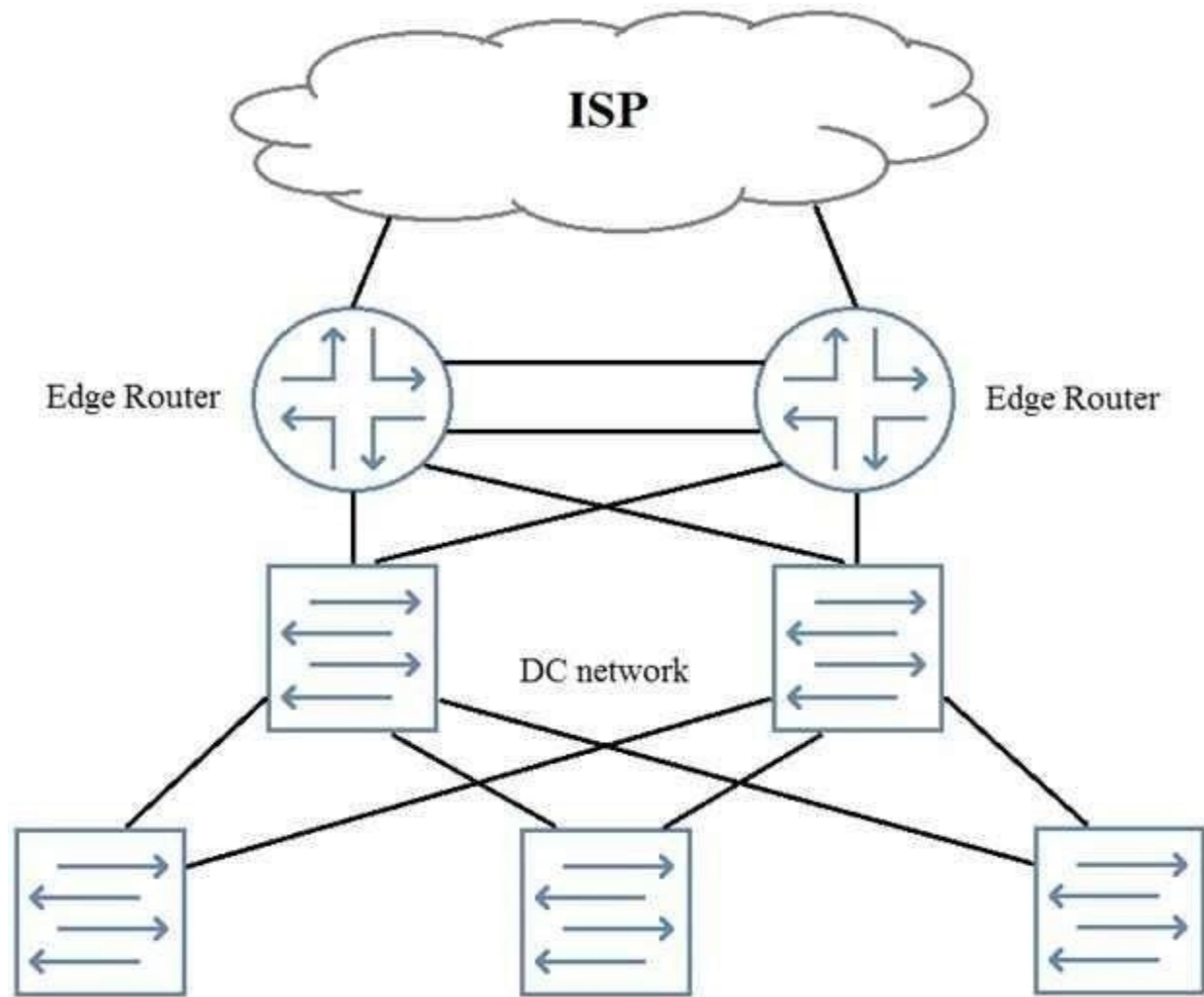
- A. The MAC address 52:54:00 5e 88 6a belongs to a remote host.
- B. The MAC address 52:54:00 5e 88 6a belongs to a local host.
- C. The MAC address 52:54:00 2c 4b:a2 belongs to a remote host.
- D. The MAC address 52:54:00 2c 4b:a2 belongs to a local host.

**Correct Answer: A, C**

**Section:**

#### QUESTION 70

You need to add perimeter security to the network shown in the exhibit. All traffic must be inspected for attacks. The edge routers are using all available ports. Your solution must maintain both port and device resiliency.



In this scenario, which design would satisfy these requirements?

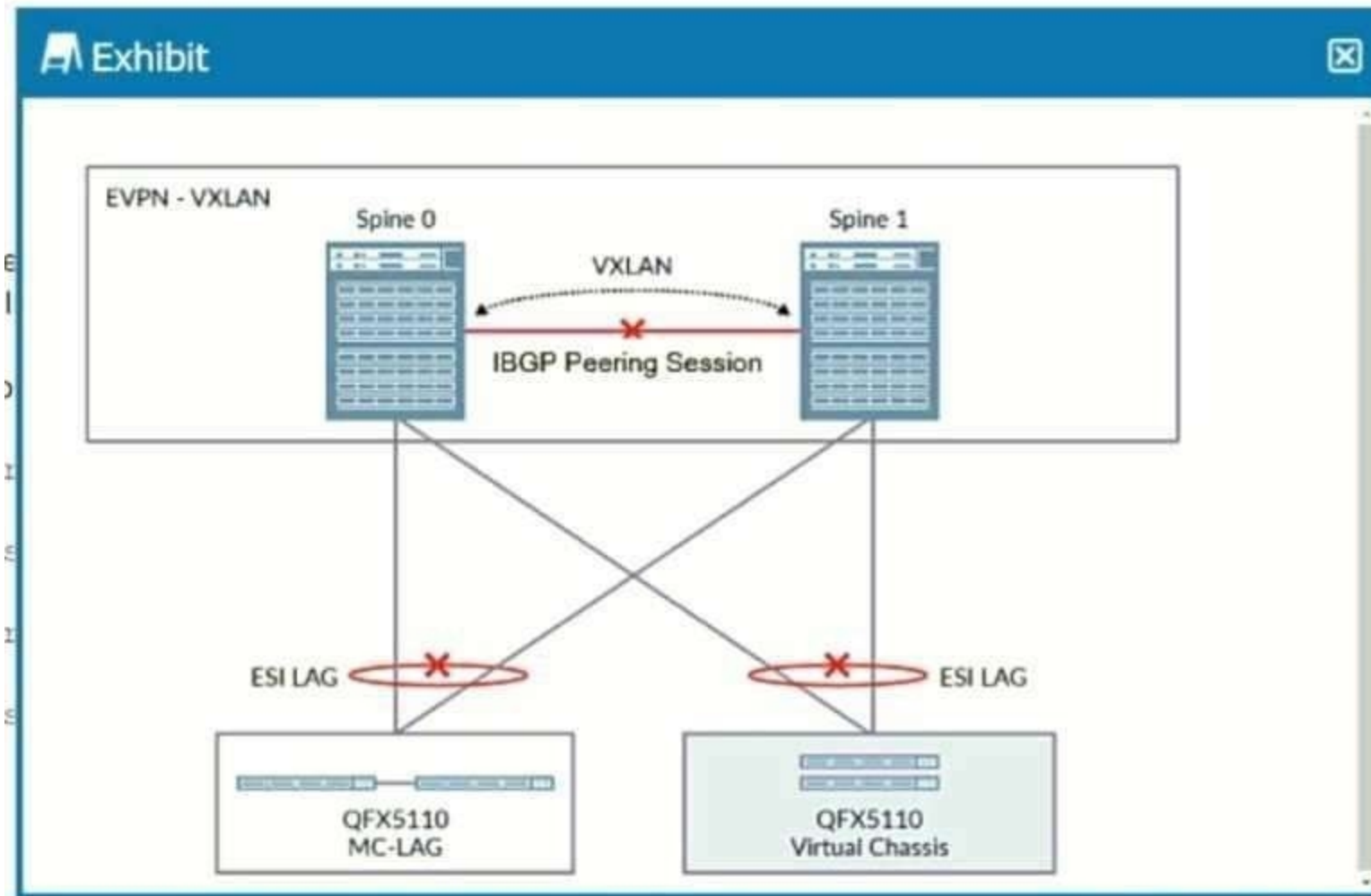
- A. one-arm SRX Series chassis cluster
- B. one-arm SRX Series device using LAG
- C. inline SRX Series chassis cluster
- D. inline SRX Series device using LAG

**Correct Answer: C**

**Section:**

**QUESTION 71**

Referring to the exhibit,



you have a data center in which only the spine devices are using EVPN and VXLAN. The leaf nodes are multihomed in active-active mode to the spine nodes through ESI LAG interfaces. In this design, a link failure on the interface connecting the spine nodes would also cause all traffic from the spine to the leaf nodes to drop. In this scenario, which command configured on which nodes would solve this problem?

- A. the disable protocols evpn no-core-isolation command on the spine nodes
- B. the set protocols evpn no-core-isolation command on the spine nodes
- C. the disable protocols evpn no-core-isolation command on the leaf nodes
- D. the set protocols evpn no-core-isolation command on the leaf nodes

**Correct Answer: A**  
**Section:**

**QUESTION 72**

You are evaluating which method to use for learning MAC addresses in your VXLAN network. Which statement is true in this scenario?

- A. Multicast exchanges MAC addresses through data plane learning and is more reliable than EVPN.
- B. EVPN exchanges MAC addresses through control plane learning and is more reliable than multicast.
- C. EVPN exchanges MAC addresses through data plane learning and is more reliable than multicast.
- D. Multicast exchanges MAC addresses through control plane learning and is not more reliable than EVPN.

**Correct Answer: B**  
**Section:**  
**Explanation:**

Ethernet VPN (EVPN) provides control plane-based MAC address learning. This means that MAC addresses are exchanged and learned via BGP messages rather than through traditional data plane flooding. This approach is more scalable and reliable compared to multicast-based MAC address learning, where MAC addresses are learned through data plane flooding. Control plane learning with EVPN is less prone to issues like broadcast storms and provides a more efficient and stable mechanism for MAC address dissemination in large-scale networks.

Reference: Juniper Networks EVPN Overview and Configuration Guide.

### QUESTION 73

Referring to the exhibit, which two statements are correct? (Choose two.)

```
(master:0)
user@switch01> show ethernet-switching vxlan-tunnel-end-point remote
Logical System Name  Id  SVTEP-IP  IFL  L3-Idx  SVTEP-Mode  ELP-SVTEP-IP
<default>           0   192.168.100.1  lo0.0  0
SVTEP-IP            L2-RTT  IFL-Idx  Interface  NH-Id  SVTEP-Mode  ELP-IP
Flags
192.168.100.2      default-switch  570     vtep.32770  1747  Man-VTEP
VNI                MC-Group-IP
5010               0.0.0.0
SVTEP-IP            L2-RTT  IFL-Idx  Interface  NH-Id  SVTEP-Mode  ELP-IP
Flags
192.168.100.11    default-switch  569     vtep.32769  1744  RNVE
VNI                MC-Group-IP
5010               0.0.0.0
```

- A. Seamless EVPN VXLAN stitching is in use.
- B. Switch01 is a spine device.
- C. An OTT data center interconnect is in use.
- D. Switch01 is a leaf device.

**Correct Answer: A, D**

**Section:**

### QUESTION 74

You are asked to implement a monitoring and telemetry solution for the QFX Series devices in your IP fabric that uses a push model to collect both system event data and statistical data for your QFX Series devices. Which technology satisfies your requirements?

- A. JunosXMLAPI
- B. REST API
- C. SNMP
- D. Junos Telemetry Interface

**Correct Answer: D**

**Section:**

**Explanation:**

The Junos Telemetry Interface (JTI) is the ideal solution for monitoring and telemetry in an IP fabric using QFX Series devices. JTI uses a push model to stream system event data and statistical data from the devices. It provides real-time, granular monitoring capabilities, which is more efficient and scalable compared to traditional polling methods like SNMP. By pushing data to a telemetry server, JTI allows for more dynamic and immediate insights into network performance and health.

Reference: Juniper Networks QFX Series Documentation - Junos Telemetry Interface.

### QUESTION 75

You are configuring an MX Series router to act as a Layer 3 gateway to route traffic between VXLANs in different data centers across a WAN connection. In this scenario, what must you do to enable this communication?

- A. Configure route reflectors.
- B. Change the UDP port used by the VXLANs.
- C. Configure the IRB interfaces to connect the VXLANs.
- D. Enable PIM on all interfaces.

**Correct Answer: C**

**Section:**

**Explanation:**

To enable communication between VXLANs in different data centers across a WAN connection using an MX Series router, Integrated Routing and Bridging (IRB) interfaces must be configured. IRB interfaces provide Layer 3 routing capabilities within a VXLAN overlay network, allowing for inter-VXLAN routing. By configuring IRB interfaces on the MX router, you enable it to act as a Layer 3 gateway, routing traffic between the different VXLANs across the data centers.

Reference: Juniper Networks MX Series Documentation - VXLAN and EVPN Configuration.

#### **QUESTION 76**

You are deploying a switch using ZTP.

Which two statements are true in this scenario? (Choose two.)

- A. If the switch is already running the referenced image, no action is performed and the switch moves to the next ZTP step in the ZTP process.
- B. Using DHCP Option 150, the DHCP server informs the switch of a software image name.
- C. Using DHCP Option 43 sub option 01, the DHCP server informs the switch of the configuration file name.
- D. If no configuration file is referenced in DHCP Options, the switch downloads a default configuration file from the storage server.

**Correct Answer: A, C**

**Section:**

**Explanation:**

In Zero Touch Provisioning (ZTP), the process is streamlined to simplify the deployment of new switches in the network. When a switch that supports ZTP boots and does not find a configuration file, it attempts to acquire one using DHCP. If the switch is already running the firmware image specified by the DHCP server (if mentioned), it proceeds to the next step without re-downloading the image. DHCP Option 43 suboption 01 is used by the DHCP server to provide the URL of the configuration file to the switch.

Reference

Zero Touch Provisioning

#### **QUESTION 77**

You are asked to build a single export policy that can be applied to all devices to advertise only loopback IP addresses in the 172.16.0.0/24 subnet into your EBGP IP fabric. In this scenario, which two solutions would accomplish this task? (Choose two.)

```

A. policy-options {
  policy-statement EXPORT-LOOPBACK {
    term LO0 {
      from {
        protocol direct;
        route-filter 172.16.0.0/24 prefix-length-range /24-/30;
      }
      then accept;
    }
  }
}

```

```

B. policy-options {
  policy-statement EXPORT-LOOPBACK {
    term LO0 {
      from {
        protocol direct;
        route-filter 172.16.0.0/24 prefix-length-range /32-/32;
      }
      then accept;
    }
  }
}

```

```

C. policy-options {
  policy-statement EXPORT-LOOPBACK {
    term LO0 {
      from {
        protocol direct;
        route-filter 172.16.0.0/24 prefix-length-range /32-/32;
      }
      then accept;
    }
  }
}

```

```

D. policy-options {
  policy-statement EXPORT-LOOPBACK {
    term LO0 {
      from {
        protocol direct;
      }
      then accept;
    }
  }
}

```

```

policy-options {
  policy-statement EXPORT-LOOPBACK {

```

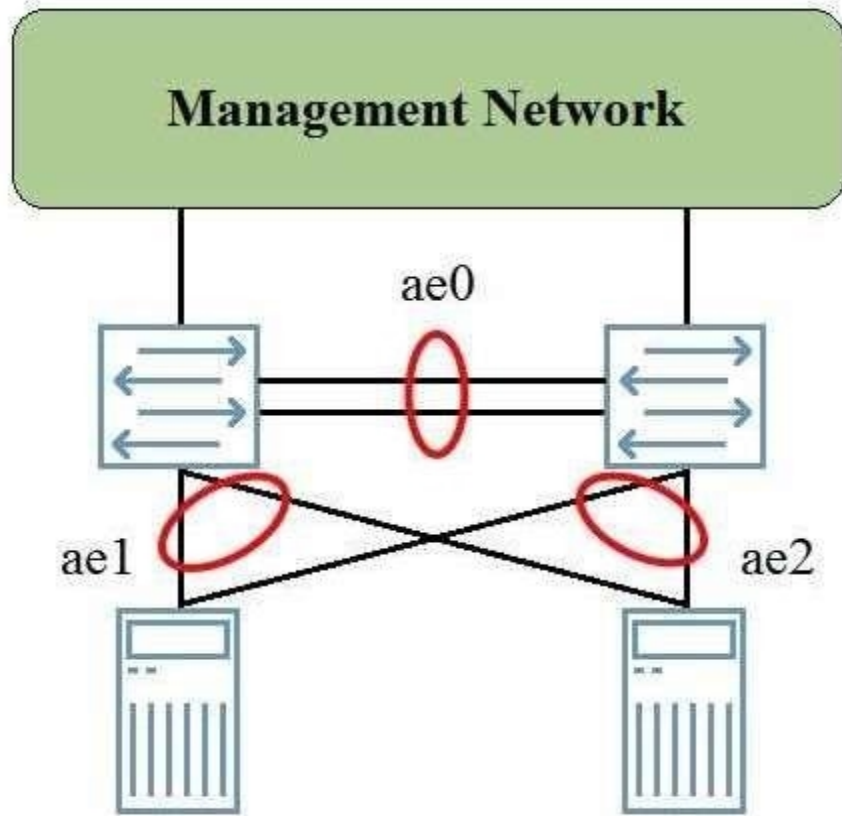
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Correct Answer: B**

**Section:**

**QUESTION 78**

The MC-LAG group shown in the exhibit is providing high availability services for the directly connected servers. The backup liveness detection is applied to the ICL-PL link, however, when one of the members rebooted, there was traffic loss for a few seconds.



In this scenario, where should you apply the backup liveness detection?

- A. On the management interfaces
- B. On the ae2 interface
- C. On the ae1 interface
- D. On the ae0 interface

**Correct Answer: A**

**Section:**

**QUESTION 79**

You are deploying a VXLAN using signaling overlay network in your new data center. You are able to establish your MP BGP peering session and see your EVPN routes, but traffic will not traverse the VXLAN using signaling overlay network.

What is a solution to this problem?

- A. Enable the mtu-discovery feature on the MP peering sessions between VXLAN ANs EVPN signaling peers.
- B. Increase the protocol MTU on all devices participating in VXLAN using EVPN signaling
- C. Increase the MTU on the logical VTEP source interface of all devices participating in VXLAN using EVPN signaling.
- D. Increase the physical MTU on all ports on all devices participating in VXLAN using EVPN signaling.

**Correct Answer: D**

**Section:**

**Explanation:**

Increasing the physical MTU on all ports of devices participating in a VXLAN EVPN signaling network is essential. VXLAN encapsulation adds additional bytes to the Ethernet frame, which can lead to packet drops if the MTU is not large enough to accommodate the increased frame size. Ensuring that the physical MTU is set correctly on all devices allows for successful transmission of VXLAN encapsulated packets.

Juniper Networks - Understanding VXLANs

**QUESTION 80**

What is the endpoint of a VXLAN tunnel?

- A. DLCI
- B. VTEP
- C. LSR
- D. VCF

**Correct Answer: B**

**Section:**

**Explanation:**

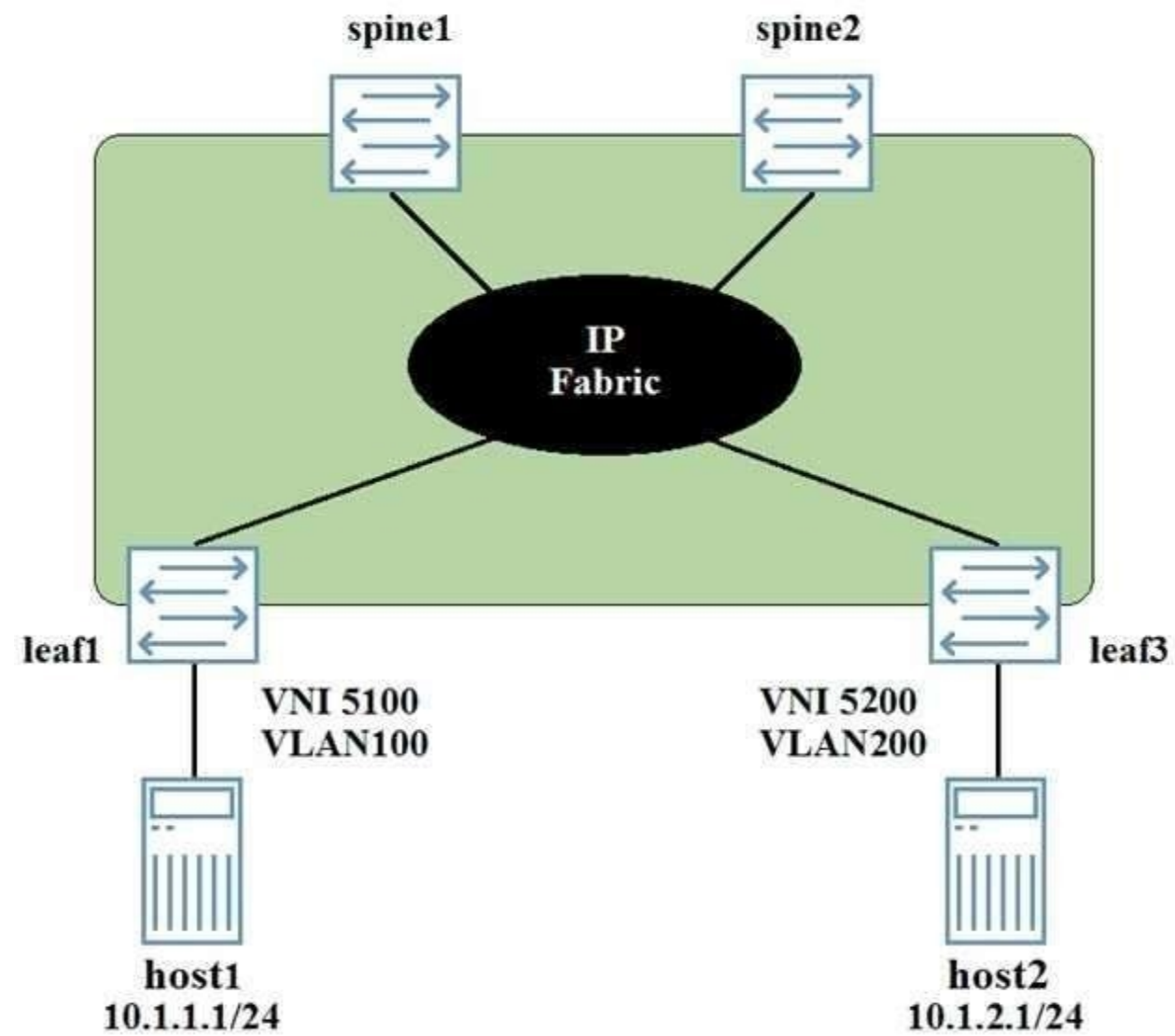
The endpoint of a VXLAN tunnel is known as a VTEP (VXLAN Tunnel Endpoint). VTEPs are responsible for encapsulating and de-encapsulating the traffic sent over the VXLAN network.

Juniper Networks - VXLAN Overview

**QUESTION 81**

Host1 and host2 are connected to an EVPN signaled VXLAN overlay, and must have Layer 3 connectivity. The VNI and VLAN assignments are shown in the exhibit.





In this scenario, which two statements are true? (Choose two.)

- A. A Layer 3 gateway can be configured on the leaf devices.
- B. The VNI assigned to the host1 link must be same as the VNI assigned to the host2 link.
- C. The ESI assigned to the host1 link will be different from the ESI assigned to the host link.
- D. A layer 3 gateway can be configured on the spine devices.

**Correct Answer: A, D**

**Section:**

**QUESTION 82**

Referring to the exhibit, what would cause the problem on VCP 0/50?

```

{master:0}
user@gfx1> show virtual-chassis vc-port

fpc0:
-----
-----
Interface  Type      Trunk  Status
   Speed      Neighbor  ID
or          (mbps)    ID Interface
PIC / Port
0/50      Configured  -1    Down
         40000

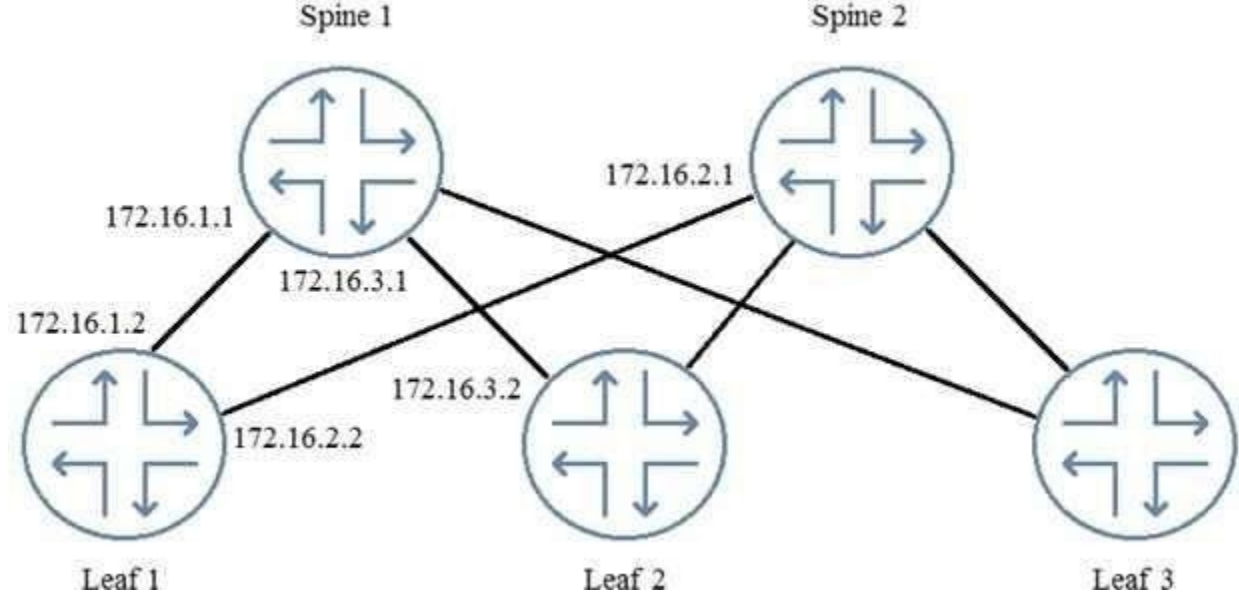
```

- A. The port is missing the interface hardware
- B. The remote side is not configured as a VCP
- C. The VCP has been disabled through configuration
- D. VCP 0/50 is configured as a network port.

**Correct Answer: B**  
**Section:**

**QUESTION 83**

You are logged in to Leaf 1. When examining the routing table, you notice that you have no routes from Leaf 2.



Referring to the exhibit, which two commands would you use to troubleshoot the problem? (Choose two.)

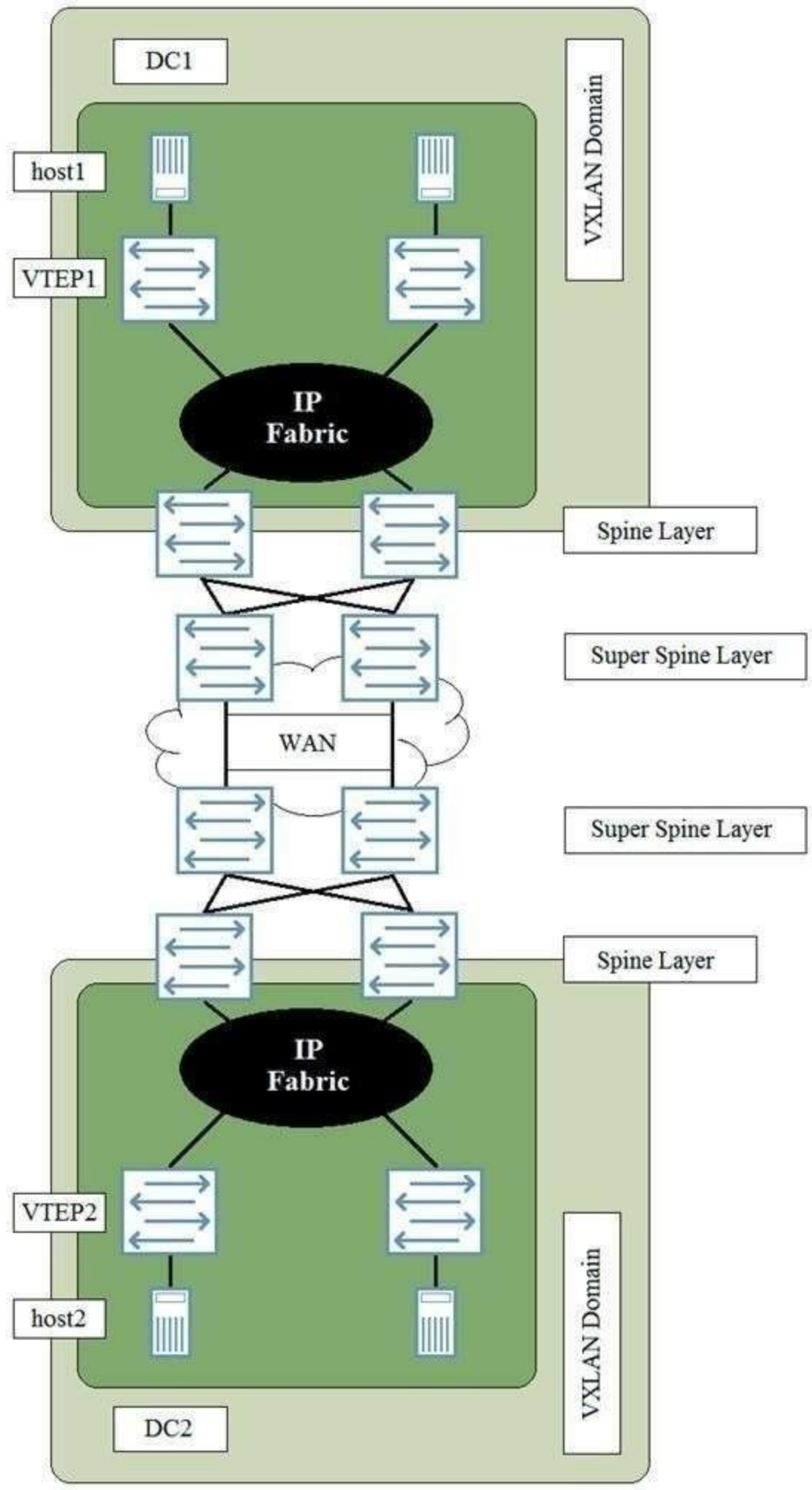
- A. From Leaf 2, issue the show route advertising-protocol bgp 172.16.1.2 command.
- B. From Spine 1, issue the show route advertising-protocol bgp 172.16.1.1 command.
- C. From Spine 1, issue the show route advertising-protocol bgp 172.16.1.2 command.
- D. From Leaf 1, issue the show route receive-protocol bgp 172.16.1.1 command.

**Correct Answer: C, D**

**Section:**

**QUESTION 84**

You have deployed two data centers that require a Layer 2 stretch between host1 and host2.



Referring to the exhibit, what does a Layer 2 stretch require?

- A. A VPLS WAN connection data centers
- B. A VXLAN tunnel originating on VTEP1 to VTEP2
- C. A VXLAN tunnel originating on the super Spine Layer in DC1 to the Super Spine Layer in DC2
- D. A VXLAN tunnel originating on the Spine Layer in DC1 to the Spine Layer in DC2.

**Correct Answer: B**

**Section:**

#### QUESTION 85

What are three functions supported by the Contrail Command user interface?

- A. Integrated syslog collector
- B. Enabling VM-to-BMS bridging
- C. Configuring management domains
- D. Onboarding of an IP fabric
- E. Creating virtual network

**Correct Answer: A, C, E**

**Section:**

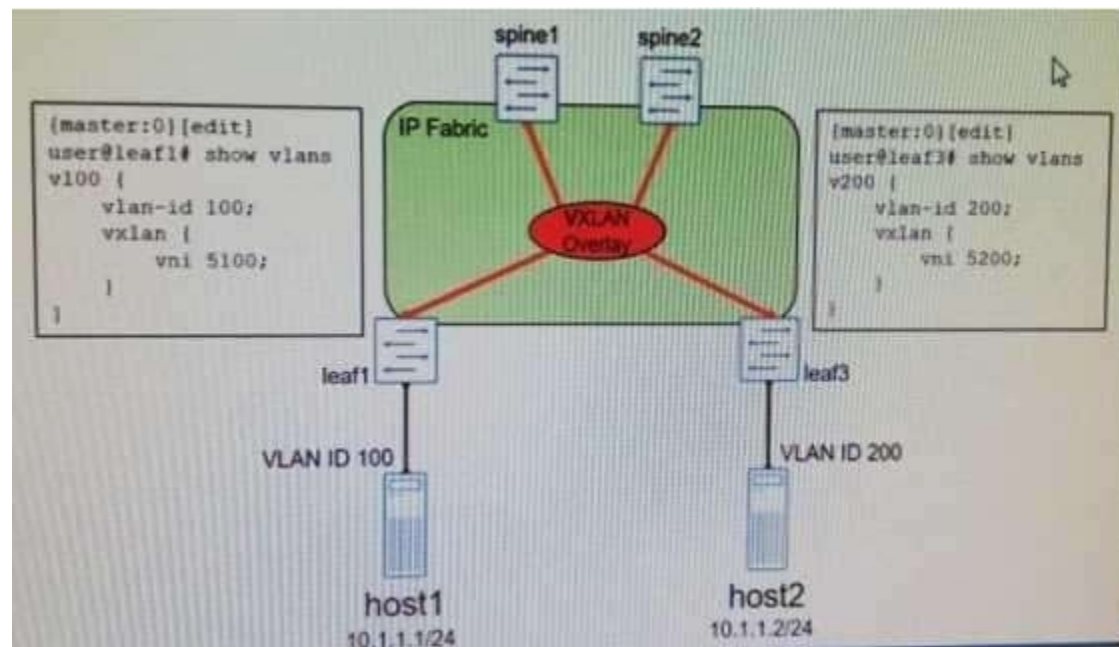
**Explanation:**

The Contrail Command user interface supports various functions including configuring management domains and creating virtual networks. It provides an integrated platform for managing and configuring network resources in a centralized manner.

Juniper Networks - Contrail Networking Documentation

#### QUESTION 86

Devices spine1 and spine have been configured as distributed Layer 3 gateways in the VXLAN topology, and devices leaf1 and leaf3 have been configured as layer 2 gateways. Device host must be able to communicate with device host?



Which two statements are true? (Choose two.)

- A. An IRB interface must be configured on device leaf1 and leaf2.

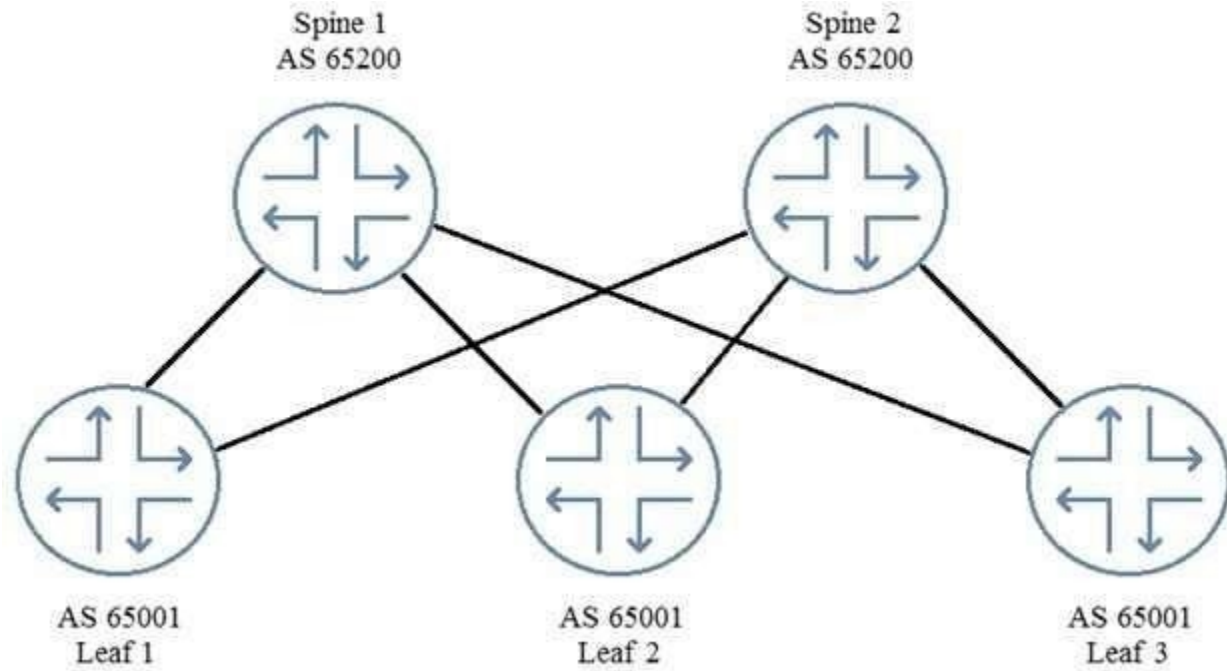
- B. An IRB interface must be configured on devices spine1 and spine2.
- C. Traffic from host1 to host2 will transmit the VXLAN tunnel from leaf1 to leaf3.
- D. Traffic from host1 to host will transit a VXLAN tunnel to spine or spine2 then a VXLAN from spine1 or spine2 to leaf 3.

**Correct Answer: B, C**

**Section:**

**QUESTION 87**

Referring to the exhibit, not all routes are being exchanged by EBGGP peers.



In this scenario, which BGP parameter would solve this problem?

- A. mulcihop
- B. mulcipach
- C. mulcipach multiple-as
- D. as-override

**Correct Answer: D**

**Section:**